



Project Aria
Explained

Virus Woes?
We can help

Azure Made Easy

WHAT IS 5G?

What makes the next generation
communication format important?
Researchers around the world weighs in

PLUS: We review the Honor 4C,
ASUS STRIX R9 380, MSI GTX 980Ti Gaming 6,
OPPO R7 Plus and the Casio XJ-V1 Projector





Wide, Beautiful Curved

Inspired by the world around us

The gentle curve of the Philips Brilliance curved ultrawide display puts you at the center of the desktop for a truly immersive experience like never before.

Brilliance Curved UltraWide Display (BDM3490UC)

Model Name	BDM3490UC
LCD Panel Type	AH-IPS LCD
Backlight Type	W-LED system
Panel Size	34.1 inch / 86.7 cm
Effective Viewing Area	798.2 (H) x 334.8 (V)
Aspect Ratio	21:9
Optimum Resolution	3440 x 1440 @ 60Hz



CurvedDisplay



UltraWide



Wide Viewing Angle



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Philips Monitor Msia



PHILIPS



5G Is Coming Soon

As we are forever glued to our small screens, the yearning for faster and faster speeds for internet browsing increases. This is the basis of technological advancement - we want something, which becomes a need, and in turn, becomes reality.

Thus this month we check out what is in the books for the next generation in connectivity. Research labs all over the world is hard at work to bring what is commonly known as 5th generation connectivity, or 5G. Read up all about it from **page 66**, and see what we can expect from telco companies in the near future.

Apart from that, we were lucky when ASUS invited CHIP to attend a sneak preview of their upcoming 100-Series motherboard product reveal in Bangkok, and we have our take on what happened in our news section. We also talked with the people from the R&D department from ASUS, and they shared with us the challenges of developing the new products.

On our test beds, we have a couple of new and interesting products on hand. MSI's Prestige notebook, Lenovo's updated Helix 2, the new OPPO R7 Plus, and even the MSI GTX 980Ti Gaming graphics card - all of which can be read from **page 82**.

If you are into alternative operating systems, check out our quick tip on the new Ubuntu operating system, or better yet - learn how to run an operating system on the cloud on the Azure platform.

Looking for more content to read up? check out our lite & leisure section, we talk about the new video streaming service from iflix, as well as take shot in becoming a ship's captain in our review of the World of Warship game.

Plus, this month we present to you, our readers, a facelift of our layout of the magazine. It is a mix of a refreshing look, feel and style, bringing CHIP to a new level in publishing.

Thanks for reading, and have a great day ahead.

Sharil Abdul Rahman



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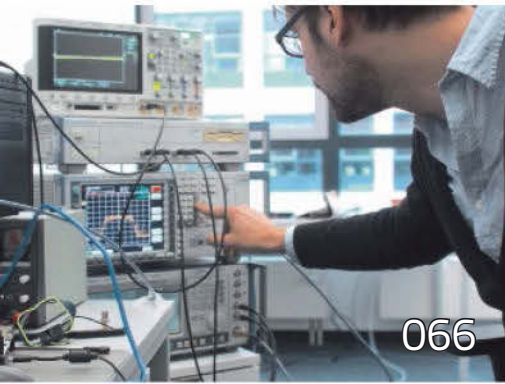
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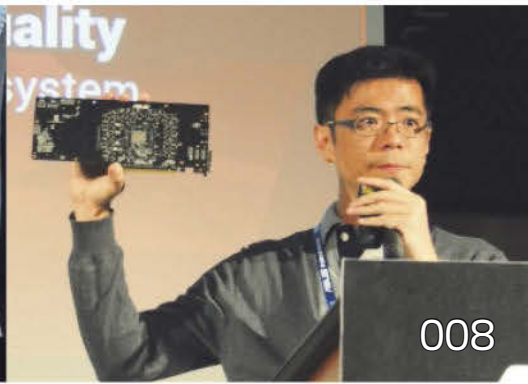
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COVER STORY

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With 5G looming in the near distance, we check in with the researchers around the world to see what is coming in the future

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CHIP Downloads August 2015

We're back with our monthly dose of interesting, free and handy tools for you to enhance your PC experience. If you want to know how you can get these files, follow the instructions below:

1. Head on our website @ www.chip.com.my and right at the top, click on the 'Downloads' tab
2. After that, click on the respective month's post. You will then be prompted for a password. The password can be found on this page monthly.
3. Navigate using the tabs and pick the categories you want to download the files from. Once you find the file you want, just click on it and you're good to go!

And it's as easy as that!

PASSWORD FOR AUGUST 2015 - icecreamsandwich

Featured Tools Kaspersky Rescue Disk

This is a useful application for users who wants to scan and remove threats from an infected computer without the risk of infecting other files or computers. This software is supported by all Windows systems and this software can also be recorded should you already have Kaspersky Antivirus or Kaspersky Internet Security. In order to use this software, you should first set your system to boot from the CD/DVD or USB device then insert the disc or the USB stick in to your system then restart the system. After the process is loaded, you would then be directed to the Kaspersky Rescue Disk interface.

LinuxLive USB Creator

LinuxLive USB Creator is a free and open-source software for Windows. LinuxLive is designed for both beginners and enthusiast, whereby beginners will have their Windows clean of any modifications whereby experts would be able to test any type of Linux distributions directly from Windows, thus install them via USB instead of CD. Additionally, this software is free and open sourced as well as being available in a multitude of languages.

Windows 10

In the coming days, many of us who have gotten our Windows 10 slot registered would be able to enjoy the latest and rumor has it last Windows operating system. Some notable features are back in this operating system and the most obvious is the return of the Start button, whereby it has been expanded in usage but familiar in aesthetics. This time, the Start menu brings over pinned apps and favourites. Following this new OS, comes Microsoft's new browser the Microsoft Edge which is an all new browser that allows you to write or type notes directly on webpages and share them with others. Additionally, you can also use up to four applications simultaneously while also being able to create virtual desktops if you require additional space.



Essentials

Our list of essentials consists of programs and software such as graphic drivers, browsers, compression software and even Cloud storage software that will improve a PC user's experience. The links on our website won't provide you with the files, instead it will lead you to the developers' official website, where you can find the right file for you.



The Monthly Downloads

PanBox

Operating system: Win XP/Vista/7/8

The Open Source tool PanBox has been developed jointly by Sirrix AG and the Fraunhofer Institute for Secure Information Technology. It supports all users in saving their data securely in Cloud services such as Dropbox, Google Drive or OneDrive. The focus here is clearly on the security aspect and not on the user-friendliness - where the program completes the tasks given to it with flying colours.



Aptosid

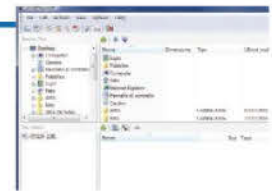
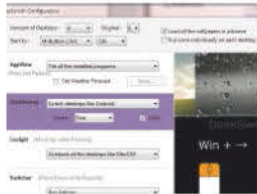
Operating System: Linux

Aptosid was developed based on the popular Distribution Debian. Unlike in case of other derivatives, the community exclusively relies on latest and free software such as LibreOffice, digiKam or K3b. The system, therefore, is so popular among its users mainly because it works fast and remains stable despite earlier development studies.

InfraRecorder

Operating system: Win XP/Vista/7

In the future, you would be able to burn CDs and DVDs easily using the InfraRecorder. The program has everything that you need to create data media and needs very little space for the same. The tool is ideal for users who rarely need such a software. It can also handle image files.



Blacksmith

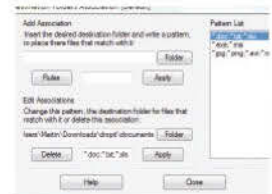
Operating system: Win XP/Vista/7

In contrast to Linux systems or Mac OS, working on several interfaces in Windows is not readily possible. But this can be made possible using tools such as Blacksmith. You can create and manage up to six individual desktops. This eases working on various projects and saves you the cost of buying another monitor.

Droplt

Operating system: Win XP/Vista/7

After installing Droplt, you can automate many work steps related to your files. For example, first drag a ZIP file on the desktop icon and you can define a rule for the same ensuring that the procedure is executed automatically the next time. You will thus save a lot of time and energy.



H-Capture Pro 4.3

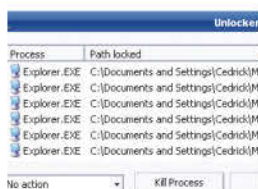
Operating system: Win XP/Vista/7/8

Do you want to create screenshots for a presentation or training? The smart H-Capture Pro is perfect for such tasks. A special feature of this software is that it also captures various layers of your Desktop, irrespective of whether the desired window is minimized, is in the foreground or background.

wxMaxima

Operating system: Win XP/Vista/7/8

Simple tasks like addition, multiplication or subtraction but also solve complex equations with several unknown parameters. It will initially take some time to get used to it but you will find a detailed manual under maxima.sourceforge.net/



Unlocker

Operating system: Win XP/Vista/7/8

The freeware Unlocker helps you to delete files or folders which are actually blocked by the system. You select the file or the corresponding folder that you wish to edit and confirm the process with 'OK'. You can rename, delete or move files to other locations using the tool.

Cloudfogger

Operating system: Win XP/Vista/7/8

The latest version of the encryption tool for the Cloud is again optimised to work in collaboration with OneDrive by Microsoft. Furthermore, the software of other storage providers like MEGA, ownCloud and 1&1 SmartDrive have been added



READERS' FEEDBACK

Letter of the Month



Kingston DataTraveler Micro 3.1 16GB

A Bit More Leisure, Please?

Dear CHIP,

Hi Chipteam, I am one of your longtime readers and I have to say, I thoroughly enjoyed your reviews of all the latest and upcoming products thus far. As I myself am an avid collector of all things new and shiny, it's extremely refreshing to see your review guide making each of my purchases a smart and intelligent one. To that you have my utmost thanks. However, I realised that your Lite and Leisure section has become less dense than usual which makes me wonder if everything is going on well on that end. But regardless, good job and keep it up guys.

Chandra Nalaar

Dear Chandra,

We are glad that you have enjoyed our reviews and product showcases that we have covered thus far, it has always been within our core values to produce quality reviews so that our readers can make an informed decision whenever they intend to purchase a new product and we do our best in letting our readers know the main details that they should be looking at. Regarding our Lite and Leisure section, fear not, for we are in the process of revamping the entire section to give our readers content that can both entertain as well as inform so keep updated with us on our website and magazine in the future and thank you for being a loyal reader once again.

Kudos For The News

Dear CHIP,

My brother and I have always enjoyed your news coverages because most local newspapers only have a glimpse at what these events hold while your publication provides an in-depth view into what was being presented, and to that I have to say kudos, for it is through such coverage that I have been hooked on to your content for over 5 months. I hope you can continue the good coverage as well as content.

Liliana Kong

Dear Liliana,

We would like to thank you first of all for being a loyal reader to our subscription, and we are happy to read that you had enjoyed our coverage of local tech events. Because our publication deals with technology on such a close basis that we are able to provide further in-depth coverage when it comes to the events, and you should thus look forward to future events especially international ones, as we are always going to be up and around.

Tips to the Photographer

Dear CHIP,

I have been an avid reader of your publication for many years now and the one thing I enjoyed throughout that vast period of time was your photography tips. While I am a casual photographer myself, I find those tips on photography an immense help on my captured pieces and through that I was able to improve my photography skills. So thanks again guys, and keep up the good work.

Jack Soh

Dear Jack,

We are first and foremost glad to have a veteran reader such as yourself providing us with positive feedback as it is through loyal readership that our publication has remained to be one of the trusted technology sources out in the market. We are also happy to know that our photography section was able to help you improve as a photographer. Our tips are usually written by seasoned veterans in the field and as such they do help provide their knowledge in the art with us. So stay with us as we continue to update the section with further useful tips and knowledge.

Write to us at letters@chip.com.my. Alternatively, log on to the forums at forum.chip.com.my and make yourself heard! The Letters page is an outlet for you to voice your views and opinions towards the magazine as well as general tech trends. Feedback sent to us may be edited for suitability without altering the intended point-of-view. The monthly winners for LoTM will be contacted for further details.



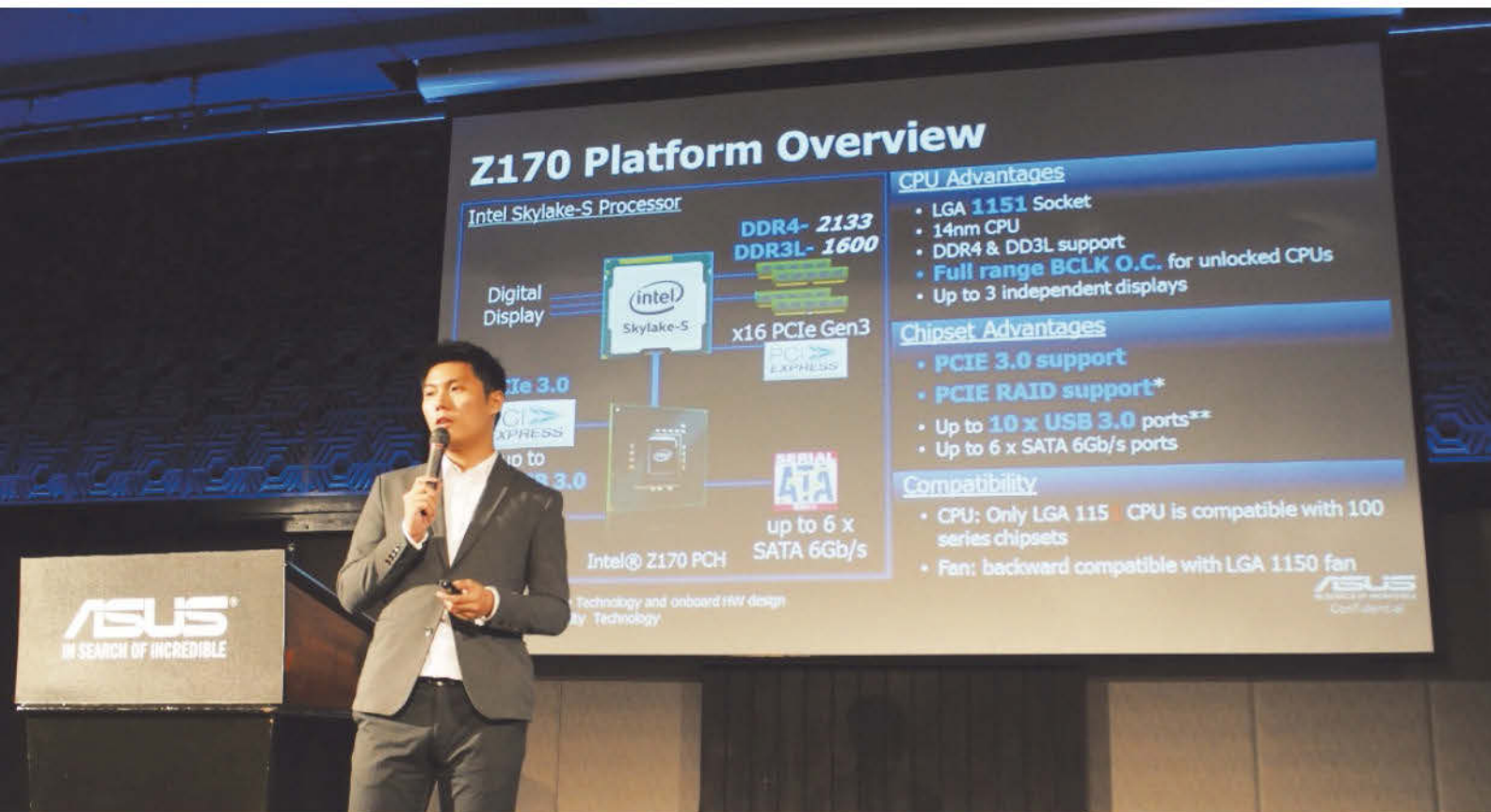
STRIX
Unleash Your Gaming Instincts

A close-up photograph of a printed circuit board (PCB) densely packed with electronic components. The most prominent features are several rows of cylindrical electrolytic capacitors, which are silver-colored with black markings. The board itself is dark green or black, and various other components like integrated circuits and smaller surface-mount capacitors are visible. The lighting is dramatic, highlighting the textures of the components and the board.

ASUS Graphics Cards – No.1 Gamers' Choice

RTX 3080 Ti 16GB | 6GB GDDR5X | 1317 MHz Boost Clock in OC Mode | 7200 MHz Memory Clock | **RTX 3080 Ti 16GB** | 4GB HBM | 1020 MHz Engine Clock in OC Mode | 500 MHz Memory Clock
RTX 3080 Ti 16GB | 8GB GDDR5X | 1090 MHz Engine Clock in OC Mode | 6000 MHz Memory Clock | **RTX 3080 Ti 16GB** | 8GB GDDR5X | 1070 MHz Engine Clock in OC Mode | 6000 MHz Memory Clock

*All performance figures may be system configuration and model.



Ryder Wang, Product Manager of Motherboards, ASUS, here on stage talking about their 100-series platform strategy

A Series of Performance ASUS Board Revealed

The new Skylake processor is well supported by ASUS latest range of motherboards

ASUS shared with the media the plans for the rollout of the upcoming Intel Z170 motherboard, designed for the Intel 6th Generation processor, codenamed 'Skylake'. The new performance-focused motherboard chipset will be featured in several of ASUS's lines of motherboard models. This includes the Maximus series as well as the ROG Gaming motherboard.

Also showcased at the technical seminar is the company's latest range of graphics card, that feature the company's new manufacturing process, Auto-Extreme Technology.

ASUS first manufacturer to achieve 100% automated manufacturing with their new range of graphics cards, using the new

manufacturing process called Auto-Extreme Technology. This new manufacturing technology removes the need of flux usage in manufacturing, so that less pollutants are released into the atmosphere. It also has a side benefit of producing a totally smooth PCD for the first time. Premium Super Alloy II meanwhile is the latest generation family of components used in the graphics card manufacturing.

Some of the graphics card showed on side includes the upcoming Poseidon GTX 980ti Platinum and the Gold 20th Anniversary Edition GTX980Ti Platinum graphics card. GPU Tweak II, ASUS's tweaking application for their GPU



Ken Liu, Chief Engineer, GPU division, with a GPU board made with the Auto-Extreme Technology

also gets a UI tweak, making it easier to change parameters on the fly.

On the motherboard side, ASUS shared that they are ready to ship out the latest 6th Generation motherboards when Intel announces the availability of the new Core processors, codenamed 'Skylake'. The first wave of the ASUS motherboards will be focusing on the 170 chipset, and be available across the Signature, ROG, Pro Gaming and TUF lines of motherboard.

One of the new features that will be present throughout the model range is a dedicated water-cooler header on the motherboard.



Some of the 100-series motherboard on display

Previously, system builders who wants to install water cooling system – be it a closed-loop or an open-loop system – will have to pull a separate power header from the PSU to power the cooling system. This has the dis-advantage of the builder not knowing the status of the cooling system at all times. Now, with the new header, anyone can connect their water cooling system, which then can be monitored by the user through ASUS's monitoring software.

Also new in the three models is the inclusion of USB 3.1 on board, in the form of both Type-A as well as Type-C connectors. The motherboards will have both connectors available to the user on the back of the motherboard, on the I/O panel, as well as USB Type-C connectors on the front of the PC through the USB Power Delivery (UPD) module that system builders can install, which can power up to 100 watts through the USB Type-C connector. This allows the motherboard to charge power hungry devices without any external power supplies.

As ASUS readies to roll out their Intel 6th Generation motherboard, the focus will be on



The upcoming 20th anniversary GTX 980ti...



...and Poseidon GTX 980Ti on display

the three main model lines that is currently in the company's line-up. The Signature model of ASUS motherboard will be the company's mainstay model, focusing on the mainstream market. With support for USB 3.1, SATA 6GB, M.2 SSD, as well as the 5-way optimisation for quick overclocking functions, the Signature line is perfectly suited for the novice system builders.

For those who are looking for durability, the TUF series offers superb performance, as well as tried and tested components that can withstand a significant amount of



The new OC Panel II for the Rampage motherboards

stress during day to day usage. New features includes the updated TUF ICE cooling system for the motherboard, the new TUF Detective 2 monitoring and troubleshooting application which allows fault management and detection, even with no CPU on board, as well as an updated TUF Armor that supports up to 10KG of force, and designed for heavy graphics card installation as well as preventing PCB bending.

The ROG and Pro Gaming line of motherboard meanwhile are designed for serious gaming in mind. The former includes features such as the new OC Panel II, which gives you direct control for overclocking on hand, Extreme Engine DIGI+ for better power delivery, ROG RAMCache for on-the-fly and tried-&-tested RAM disk solution for the ROG motherboards, SupremeFX Audio solution which includes components for better headphone audio quality, Sonic Studio II audio enhance for better audio quality while streaming online, as well as ROG Lighting Control, for RGD LED light management (in models that feature RGB LED lights).

For those who are looking to get their hands on these motherboards, the expected shipping date will be in the middle of Q3 to the early of Q4 in Malaysia. So do start that saving scheme so that you can purchase these boards on day one of availability. 🇲🇾

www.asus.com/my



Fury Up Your Gaming Experience

AMD launches their new GPU

AMD followed their launch of their new GPU in E3 with a local launch here in Malaysia. The company unveiled their next generation of PC Gaming solution. The new graphics cards mark a turning point in PC gaming, where it will be bringing super high resolutions, exceptional VR experience smooth gameplay, new API support (DirectX 12), and new form factors to fit virtually every need and budget.

The new family line includes the new R7 360 and 730, R9 380, R9 390 and R9 390X, as well as the range toppers R9 Fury, R9 Fury X as well as the R9 Nano.

"With our next generation Radeon graphics line-up, AMD is enabling a spectrum of innovation that can benefit all gamers. Exceptional performance, ground-breaking VR Capabilities, new and dynamic form factors, premium industrial design, out of this world experience in 4K and 3D, and great performance – all built to exploit the next generation API


from partners such as DirectX 12 and Vulkan. This is a new era in PC Gaming, and along with our software and hardware all around the world, AMD could not be prouder to bring these graphics cards to gamers," said Matt Skynner, Corporate VP and General Manager, Product, Computing and Graphics Business Unit at AMD.

Heading the new line-up is the water-cooled R9 Fury X. The Fury X GPU represents a paradigm change in GPU design. With the Fiji GPU is the introduction of HBM or High Bandwidth Memory modules which is integrated on-chip which delivers 60% more bandwidth over the conventional GDDR5 memory, thanks to the wide 4096-bit memory interface. It also delivers up to two times more performance when compared with the previous generation GPU.

For those who are looking for performance in a compact design, AMD will be releasing the R9 Nano. In a 6-inch form factor, AMD has managed to cram the performance of a 290X.

The power load of the Nano is expected to be only 175 watts on full load, so it will be perfect for compact form factor PCs that requires performance without the added heat baggage.

In the mainstream segment, the R9 300 series will be perfect for 4K gaming, as well as high quality 1080p gaming thanks to the Virtual Super Resolution (VSR) technology. R7 300 series meanwhile will be the perfect choice for eSport and online gamers, delivering 60fps performance at 1080p resolution.

The R7 30 and R9 300 series GPUs are already on the market, available from your favourite manufacturer and vendor, while the R9 Fury X is slated to be available by early July. R9 Nano is expected to be on shelves by late Q3 or early Q4. 

www.amd.com



On display is the new Radeon Fury X graphics card



AMD reps with the new GPUs on stage

msi®



2X FASTER
USB 3.1
TYPE-C



HEADSET BUNDLE!

ONE BOARD TO RULE ALL

X99A GODLIKE GAMING

STEELSERIES SIBERIA V2 FULL-SIZE HEADSET BUNDLE

MSI, world leading in motherboard technology, today announces an X99A GODLIKE GAMING motherboard and SteelSeries Siberia V2 headset bundle. The limited-edition headset bundle creates more value for gaming enthusiasts. MSI is working with SteelSeries, one of well-known gaming peripheral providers, to provide an enhanced gaming experience with the newest Audio Boost 3 Pro & Mystic Light Technology.

* The offer is available only in certain countries for a limited time



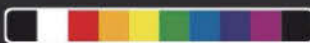
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8
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2x
Speed

2 sides
Reversible

USB 3.1
TYPE-C



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- 20X faster than USB 2.0
- Up to 10Gbps data transfer bandwidth
- Boost transfer rate for your PC and peripherals

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Ko Yun Hung, Managing Director, SNS Network Sdn Bhd and Sumner Lemon, Country Manager, Intel Malaysia and Singapore.

Not too long after launching a brand new tablet for small kids, SNS Networks, the company behind the JOI brand of smart devices has made yet another milestone recently by announcing the availability of two devices, the JOI 7 Lite tablet and the JOI Phone 5 to the Malaysian market.


As its name implies, the JOI Lite 7 is a 7.0 inch tablet with a display resolution of 1,024×600 pixels, with 1GB of RAM and dual SIM card slots, while the JOI Phone 5 is a 5.0

inch smartphone with a 5.0 inch display at a resolution of 1,280×720 pixels. Both phones also sport similar internals with the Phone 5 having 1GB of RAM and dual SIM card slots as well.

Both devices are powered by Intel's brand new X3-C3130 processor, running Android 4.4 Kit Kat and featuring 8GBs of storage space which is expandable up to 32GBs via a microSD card. SNS Network had earlier this year announced the addition of other devices to its lineup of JOI tablets including the JOI 7, JOI 8i with 3G and JOI 10 Flip.

'We have certainly come a long way since the release of our very first Intel-powered Windows tablet late last year,' said Ko Yun Hung, Managing Director, SNS Network Sdn Bhd. 'Thanks to the very encouraging response we've

received from our consumers, we have worked really hard to expand our family of mobile offerings under the JOI brand name.'

The JOI Lite 7 and JOI Phone 5 are available now for RM299 and RM399 respectively at major AEON departmental stores, as well as online channels including Gloop.com.my, Lazada.com.my, and Lelong.com.my. 

<http://joi.com.my>



The JOI 7 Lite is a 7.0 inch tablet featuring Intel's new X3-C3130 processor, 1GB of RAM and 8GBs of storage space, running Android 4.4



The JOI Phone 5 meanwhile feature the same specs as the JOI Lite 7, but in a 5.0 inch smartphone form factor

OKI Acquires Wide Format Printer Business from Seiko Instruments Inc

The move sees the company strengthens its position in the professional printer market

OKI Data Corporation has announced that they and Seiko Instruments Inc. (SII) have signed an agreement whereby OKI will acquire the globally-deployed wide format printer business of Seiko I Infotech Inc. (SIIT), a subsidiary of Seiko Instruments Inc.

OKI Data Corporation and SII signed a stock purchase agreement for the acquisition of all SIIT shares held by SII. Furthermore, OKI Data Corporation's overseas subsidiaries in Europe and the US each signed asset purchase agreements with SII's European and US group companies, to acquire the wide format printer

business and assets currently held by SII in Europe and the US. The parties will complete the business transfer on October 1, 2015, in keeping with the agreements. The transaction will not affect the various products and services currently provided by SIIT, including products and services related to wide format printers.

Through this acquisition, OKI Data Corporation will not only acquire a portfolio of wide format inkjet printers for signs and LED graphic plotters held by SIIT, but also the technologies and development resources together with the relevant sales channels.

OKI

OKI Data Corporation will strive to enhance its business activities in the professional printer market through offering one-stop printing solutions particularly targeted at the printing, distribution, and retail industry sectors. By integrating technologies and resources between the parties through the acquisition, OKI Data Corporation will enhance its product portfolio and product development capabilities.

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Let Kids Show You The Way

Kids Voice Waze In Collaboration With Maxis


Maxis has recently introduced its latest collaboration with Waze by launching Safe Mode Kids which is a kid-sourced voice available on Waze. This collaboration was inspired by a survey which found out that 97% of Malaysian parents are claiming that they drive safer when they have children in the car, and thus the Safe Mode Kids is designed to remind parents to drive safer.

While usually Waze uses special voice packs that features celebrities, Maxis' Safe Mode Kids uses different children voices to donate their voices for Waze multidirectional prompts as a charming reminder for safe driving.

'Let's face it – parents DO drive safer when kids are in the car. So we worked with Waze to put kids in as many Malaysian cars as possible. With the festive season approaching and knowing that Malaysia ranks 17th in the world for 'most dangerous roads', we thought Safe Mode Kids could be a charming and effective way to remind our fellow Malaysians to drive safer. The latest news is that Maxis' Safe Mode Kids will now be a global pack

available to tens of millions of Waze users around the world. In the end, this would not be possible without the kids who generously donated their voices. They are the real stars here, and we would like to thank them and their parents for helping us launch this amazing product," said Sulin Lau, Head of Marketing Services of Maxis.

Safe Mode Kids will be available to Waze's 50 million users around the world.

Here's how to get the Safe Mode Kids voice pack:
 Download/open Waze
 Select Settings
 Click on Sound
 Go to Voice Language
 Select 'English (US) – Safe Mode with Kids' 
www.maxis.com.my



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William (middle) with OPPO representatives as well as the new R7 Plus and R7 Lite on stage

OPPO Launches Two R7 Models in Malaysia

Both Plus and Lite variant shares internals, but targeted for different segments

Supporting a full metal body, the new R7 series from OPPO is finally setting foot in Malaysia. Two models are to be sold here – the R7 Lite and R7 Plus. The two models will be the company's current flagship phones for the local market.

'We listen to our customers' needs and requirements in a smartphone hence developed the two OPPO R7 series variants to meet various market demands. Our intense research and development, along with consistent innovation in creating a user-friendly and advanced smartphone technology will create seamless experiences for our users,' said William Fong, the CEO of OPPO Malaysia.

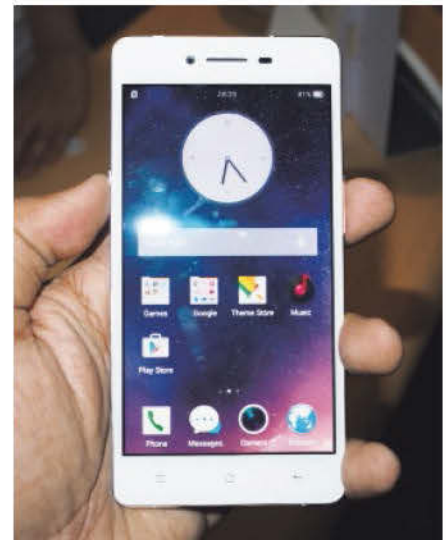
Designed with elegance in mind, the R7 Plus and R7 Lite share similar stuff inside the metal unibody construction. The R7 Plus features a 6

inch AMOLED display with a 1080p resolution. This is paired with the Qualcomm Snapdragon 615 quadcore processor, as well as 3GB of RAM and 32GB of storage for the R7 Plus and 2GB/16GB combo for the R7 Lite. Consumers can also expand their storage with a microSD slot for up to 128GB.

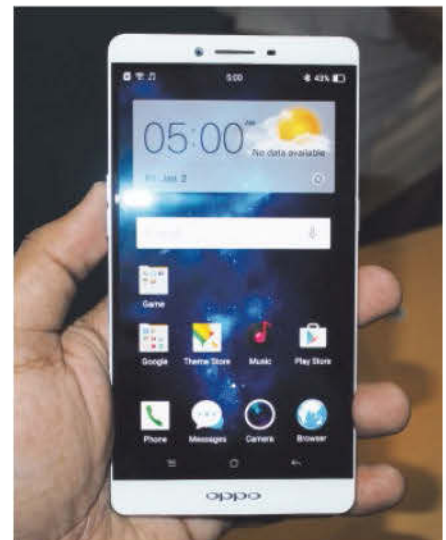
At the back of the body, you will see a 13 Megapixels camera sensor that is imbued with a variety of new imaging technology. This includes Anti-Shake Optimisation, Contrast Detection Autofocus, Phase Detection Autofocus, Flash Shot and many others.

For the R7 Lite, it shares most of the specs with the larger R7 Plus, but it features a smaller screen – 5 inch HD AMOLED screen in this case, as well as a smaller battery in body.

The R7 Plus supports the VOOC Flash



The OPPO R7 Lite



The OPPO R7 Plus

charging system, which gives the phone up to 75% of battery capacity in 30 minutes. This is useful for the R7 Plus as it has a 4100mAh battery, while the R7 Lite make do with a 2320mAh capacity and a standard fast charge system.

The latest OS from OPPO is deployed with the R7 Plus and R7 Lite. Color OS 2.1 is based on Android 5.1, and features a multitude of improvements across the board including faster app launch, shorter boot time as well as better animation across the system.

Both R7 Plus and R7 Lite will be available for the Malaysian market, with prices for the former set at RM 1,998 and the latter at RM 1,298. They will be on store shelves by early August, and preorders for the two models will be on the OPPO website, from 11/7/2015. 🇲🇾

www.oppo.com/my

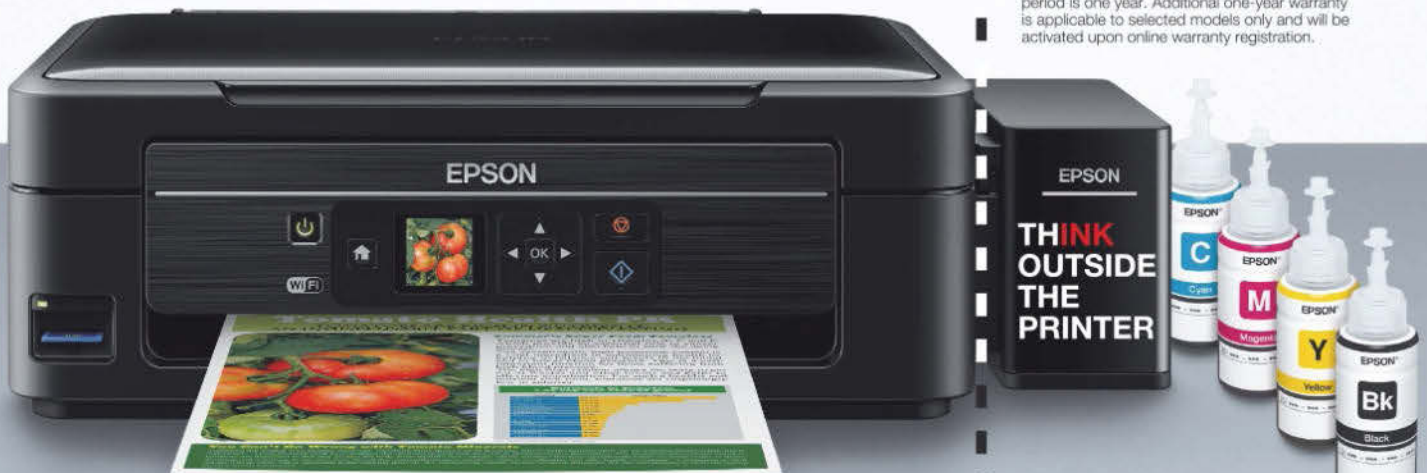
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On a Stunning Note

Xiaomi launches their Mi Note to the Malaysian Market

After a short wait period, Xiaomi finally announced and launched their flagship model, the Mi Note in Malaysia. Redefining the large-screen market locally, the Mi Note brings together a solid list of features into a good looking package.

Steve Vickers, General Manager, Xiaomi Southeast Asia, said: 'We are truly excited to bring Mi Note, Xiaomi's most beautifully designed flagship, to Malaysia. We believe that Mi fans in Malaysia will appreciate such high quality innovation made available to them at an incredible price.'

The Mi Note features Qualcomm's quad-core, Snapdragon 801 at its heart - and paired with both 3GB of RAM, and 64GB of storage - so you will never complaint about your storage needs again. Despite its ultra-thin 6.95mm frame, Mi Note has been fitted with a 3000mAh Sony/LG 4.4V high density Li-ion battery. It also comes with Quick Charge 2.0, which charges up to 75% faster than conventional methods.

For the display, Xiaomi took a couple of features from their other models, and added it to the 5.7" Sharp/JDI-sourced full HD display, which boasts a contrast ratio of 1400:1. The extra features includes Xiaomi's Sunlight Display technology that ensures a crystal-clear view of the screen even under harsh sunlight.

For high-quality pictures, Mi Note is equipped with a 13MP f/2.0 rear camera that comes with mechanical Optical Image Stabilisation (OIS) system. Xiaomi also has designed the camera to be flush with the back of the phone. The front 4MP camera meanwhile features 2-micron large pixels for better image capture, especially in selfies.

For the specs that Xiaomi has presented in the phone the retail price is astounding, as Xiaomi is retailing the phone at only RM 1,549, with GST. Xiaomi also will be teaming up with telcos to offer the Mi Note to new and returning customers, paired with enticing packages. 🇲🇾

mi.com/my



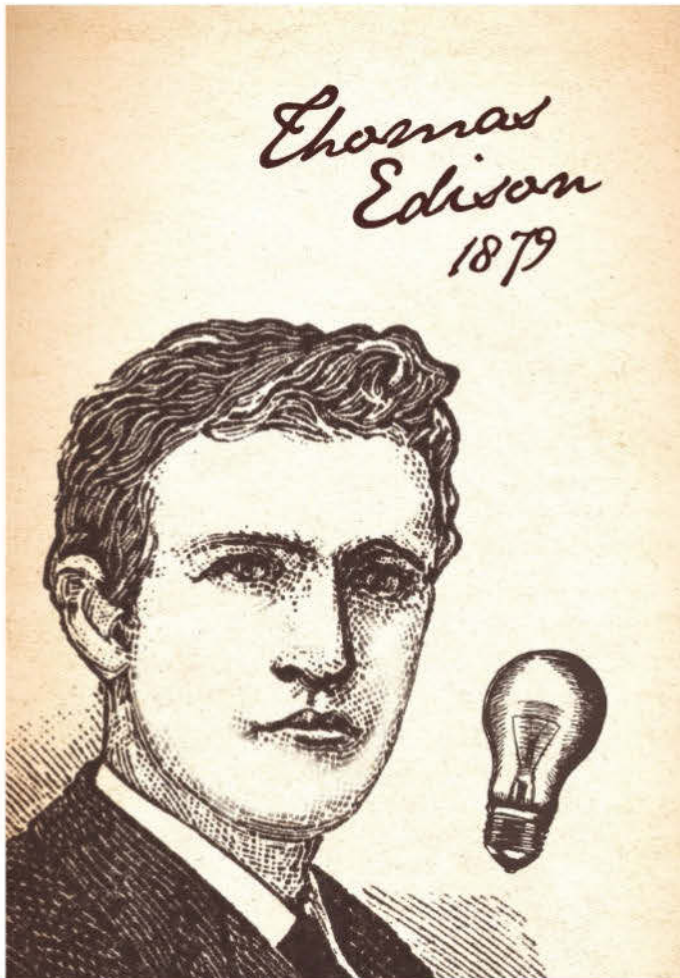
the Xiaomi Mi Note will come in one colour...



...and 64Gbs of storage



Steve (left) with the new Mi Note on stage



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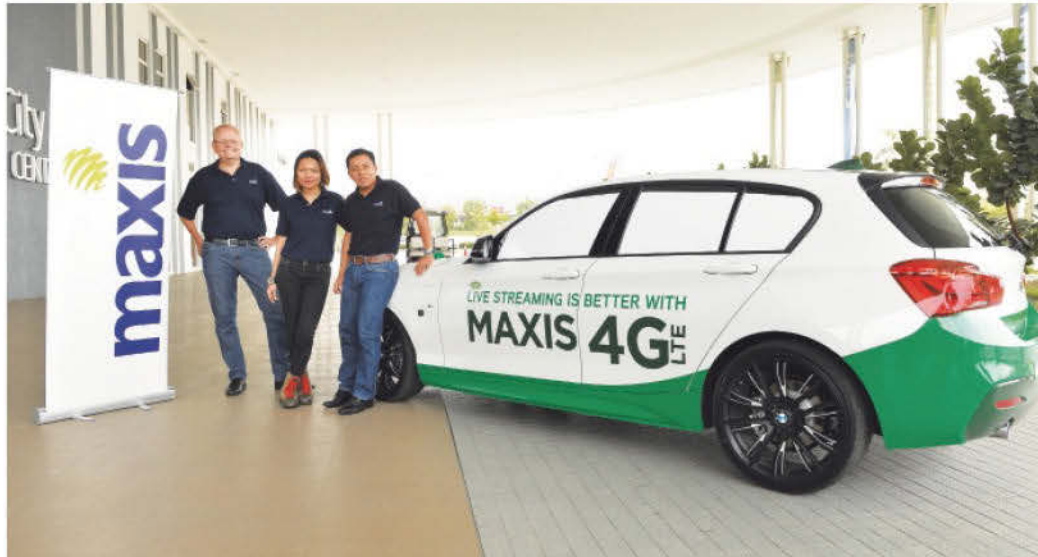
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Maxis 4G To Light The Way

Maxis holds 'blind' drifting event to showcase prowess of 4G connectivity

Maxis has been proud of the roll-out of its 4G network throughout the country, and as such, gave the local media a chance to try out something exciting with it by holding a 'blind drifting' event enabled by Maxis 4G LTE.

What's a blind drifting event you ask? Maxis engaged the services of professional BMW Advanced Racing instructor to drift through a specially designed course incorporating multiple drift actions to demonstrate superiority of Maxis 4G via live streaming. With its windows blacked out, the drift car was fitted with a webcam and a live stream app provided the



Morten Bangsgaard, Chief Technology Officer (CTO), Sulin Lau, Head of Marketing Services and Abdul Karim Hj Ali, Head of Network at the first ever 'blind drifting' Media events

driver with sight as he drifted.

Media members were then invited to join in and experience the blind drifting session for themselves as the drive drove through the obstacle course with all of the car's windows blocked, with only a smartphone powered by Maxis 4G to guide him through it.

To date, Maxis leads in 4G LTE population

coverage and targets to reach over half of the population by year end. With Maxis 4G LTE, users can expect better all day surfing and streaming with consistently faster speeds. This means users enjoy smooth, uninterrupted viewing every single time. 🇲🇾

www.maxis.com.my



Bringing More Internet to the People

U Mobile POWER Prepaid pack promises free 1GB of net

moving to a data-driven telco market. 90% of the same slice of the market accesses entertainment with their smart devices, with an average of 3 hours and 39 minutes of access time every day.

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- 10-Day Validity Period
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- Free Basic Internet (No Pay-As-You-Use charges) 🇲🇾

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Bringing more option to the people, U Mobile is taking the prepaid market by storm with the brand new U Mobile POWER Prepaid Pack. The biggest proposition with the new prepaid pack is the offer of free 1GB of High Speed internet for free per month.

With over 16.5 million prepaid users, and 79% of them accessing social media at any given time, it is a given that Malaysia is

Hence, U Mobile brings to the customer the new POWER Prepaid pack, a new product with an impressive list of features, free basic internet, free daily calls, mobile credit, the lowest one call rate to all network in a single pack and much more.

The prepaid pack starts from RM 8.50, and includes the following with every purchase:


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Because it matters

Understanding the State of Mobile in Malaysia

Ericsson shows which apps are used most by Malaysians, and how telcos can improve services

Ericsson recently released its third South East Asia and Oceania Appendix to its Ericsson Mobility Report, which illustrates regional contrasts in areas such as smartphone uptake, top app usage, access to LTE and network performance.

The report shows that social networking, instant messaging, and video streaming dominate smartphone usage in the region with varied app preference from market to market. In Malaysia, WhatsApp, Facebook, and YouTube are the top three apps actively used by smartphone users.

For service providers, delivering a consistent user experience aligned with the most popular apps can help drive customer satisfaction. In order to do this, operators need to optimize and

tune their networks to ensure users' particular app coverage demands are catered for in different traffic situations and geographical areas.


Malaysia has been identified as one of the countries with lowest app coverage, sparking the need for operators to improve the performance and capture the opportunities offered by data growth. To address this, operators must have clear strategies to evolve their operating model and leverage on network performance by either utilizing superior network performance as a differentiator or by improving network performance to meet customer expectations, to grow and remain profitable even as they meet consumer needs.

In collaboration with Ernst & Young,



(L-R) Todd Ashton, President of Ericsson Malaysia & Sri Lanka, Sebastian Barros, Vice President - Solutions, Ericsson Malaysia & Sri Lanka and Afrizal Abdul Rahim, Head of ConsumerLab Ericsson South East Asia

Ericsson has identified three distinct strategies adopted by mobile operators that have successfully adapted to the demands of their networks and consumers alike.

These include quality-led progression where operators differentiate through high-performing networks and high brand preference, market-led adaptation which includes operators that differentiate through quick adaptation to market conditions and offering-led transformation which refers to operators that differentiate by being first to market with uniquely designed offerings. 

www.ericsson.com

Growing The Cloud in Asia Pacific

Oracle announces Rainmaker Program to recruit individuals to expand the cloud business

If you've heard of Oracle before, chances are you probably know them as a database company. Now, however, they are currently looking to expand into the cloud ecosystem, and are expanding rapidly especially in the Asia Pacific region.


It is with this in mind they are looking for new hires around the region who are capable of catapulting the Oracle business into one of the biggest cloud service providers around. The

Rainmaker program seeks salespeople around Asia Pacific, and to date, have hired roughly 800 people, and are still constantly looking for more.

Included in the Rainmaker Program is an accelerated 5-week onboarding and induction program to familiarise the new hires with Oracle's products and philosophy, which also features comprehensive sales foundation, as well as technical and soft skills training. For those who achieve high sales targets and such,

they will then be able to move on to the next phase of their careers.

Oracle as a business are now concentrating on become a Software-as-A-Service, Platform-as-A-Service and Infrastructure-as-A-Service business. Their customer base now range from enterprise corporations, to SMEs, banks and even stock exchange markets.

With this in mind, Oracle does not only offer cloud-based services and infrastructure, but also applications as well, supporting a wide array of database types, ERP, HCM and storage solutions. With 19 Tier 4 data centres around the world, Oracle now has over 700 petabytes of data stored in their servers, are connected to 54,000 devices around the world and have over 33 billion transactions made each and every day. 

www.oracle.com


REPUBLIC OF GAMERS

LIVINGROOM GAMING WITH THE GR6



*Intel, the Intel Logo, Intel Inside, Intel Core, Ultrabook, and Core Inside are trademarks of Intel Corporation in the U.S. and other countries.

Who says the computer is just for the computer room? Since the early days of computing, many enthusiasts have been running computers hooked to the living room PC. Even the first computers were hooked to TV monitors in the living room. So the notion of a Living Room PC is not foreign. However, these days consoles dominates the TV rather than PCs. With the ASUS GR6 – this trend may change yet again.

Compact performance in spades

As it is compact and portable, the GR6 can be positioned anywhere, as well as be tote along everywhere, so you can literally game on the go – you just need to have a screen. Underneath the hood lies a powerful Intel® Core™ i5 processor and GPU combo however, so this mean you are not limited in anyway in performance.

Plus, the power in this tiny case is much more than your typical game console, so you get more eye candy for what you pay for. Imagine your favourite games in ultra-high resolution at 1080p resolution. Pretty cool eh? Also, the GR6 is perfect for times you want to have a serious gaming machine at a LAN party. It fits in your backpack, and it still can kick the rear ends of many gaming machines out there.

SupremeFX Audio Technology

Not just gaming, your audio experience should be a great one especially in your living room. That is why the GR6 comes equipped with the SupremeFX Audio technology, to deliver a precision-audio experience. Combining premium audio component and robust software support – This combination will deliver great audio experience while you game with the GR6.

One-touch Steam Big Picture

Only on the GR6 is the Steam Big Picture Launcher button available in the ROG series. With this button, you can press and it will automatically launch a TV-optimised Steam UI, where users can select PC games using just the controller. This is ASUS's version of a console-like experience for the living room.



For more information, visit :- <http://www.asus.com/Mini-PCs/ROG-Series-Products/>

Specifications

CPU	Intel "Broadwell" Core i5 5200U processor	Back IO	Audio jacks x 3, S/PDIF optical out x 1 HDMI x 1, DisplayPort x 1 Gigabit LAN x 1, USB3.0 x 4 19V DC-in 120W x 1, K-lock x 1
Memory	4GB DDR3L 1600MHz, 2 x 204pin SO-DIMM slots		
Graphic	NVIDIA GeForce GTX960m with 2GB GDDR5 VRAM		
Storage	1TB 2.5" HDD 7200rpm 1 x 2.5" extension bay for HDD/SSD	Audio	ROG SupremeFX 5.1-Ch HD Audio ELNA Premium Audio Caps/AMP with de-pop for headphone Sonic SoundStage/Sonic SenseAmp/Sonic Studio/Sonic Radar II DTS Connect via optical S/PDIF out port at back
Networking	Wi-Fi 802.11 a/b/g/n/ac Intel® Gb LAN with ROG GameFirst III		
Front IO	Headphone x 1, MIC-in x 1 USB2.0 x 2, 1 with quick charging		
Special Feature	Steam Big Picture Launcher	Dimension	Max. 238 x 245 x 60 mm, 2.5 liter



An Empowered Lifestyle

DiGi Telecommunications launched its latest initiative to help bring the internet to the masses

Digi Telecommunications Sdn Bhd reinforced its dedication to bring the power of the internet to more Malaysians in order to build a strong digital community that can participate, navigate and thrive in the internet economy with DiGi Societies, which combines various community programmes to enable different community groups, women, youth children, and the underprivileged as well as netizens from urban and rural areas to enjoy the benefits of staying connected.

Speaking at the launch of Digi Empower Societies YB Dato' Sri Ahmad Shabery bin Cheek, Minister of Communications and

digital economy in transforming Malaysia into a high-income nation. YB Dato' Sri Ahmad Shabery said, 'Our ability to innovate and use the internet as a catalyst to create positive social change and improve businesses can help spur growth of the digital economy, which in turn results in widespread impact on the whole economy. This can only happen with pervasive access to the internet – ensuring connectivity for the unconnected and amplifying use by savvy netizens.'

Also part of the DiGi Empower Societies flagship programs was the launch of the sixth installation of Digi Challenge for Change which has a new focus on engaging Malaysian social

purpose organisations (SPOs) and solution providers (SPs) to come up with an holistic approach to address a common community issue within Malaysia. It is part of the National Blue Ocean Strategy (NBOS) Social Public-Private Partnership initiative led by Agensi Inovasi Malaysia (AIM) in collaboration with the Public Private Partnership Unit (UKAS), and endorsed by the Ministry of Communications and Multimedia.

Digi Challenge for Change is open to all Malaysian SPOs (non-governmental organisations (NGOs), nonprofit organisations (NPOs) and social enterprises). The winner will take home an incubation package including a matching grant of RM250,000 (Digi and AIM) and the opportunity to be guided and mentored by the programme partners. 📌

www.digi.com.my/empower

IT Professionals See Rise in Value

PIKOM reveals IT job market value rising in 2015

The National ICT Association of Malaysia (PIKOM) has recently unveiled its 2014 ICT Job Market Outlook Report, revealing some interesting details and insights on the local ICT industry. This year's report also sees C-level salaries unveiled for the first time, as well as an early outlook at the state of the job market in 2016.

Despite the external environment and recent developments in the global and domestic economy, the report indicates that the Malaysian ICT industry remains robust – driven by the intensification of digitisation processes in transformation projects and capital intensive corridor projects as well as consumption, investment and trading of ICT products and services.

In the report, 24 industries were surveyed, looking at which industry IT segments get

paid the best. In the report, Malaysia is also benchmarked against other countries where ICT is a growing industry as well. The survey was made in conjunction with Jobstreet, various other job portals and external companies as well.

On average ICT professionals saw salaries grow by 7.9 percent; from RM7,142 in 2013 to RM7,706 in 2014. From 2010-2014, pay packets have steadily increased at a healthy average annual growth rate of 8.2 percent. Senior managers in particular, have enjoyed the highest pay hikes – 9.5 percent followed by junior executives at 8.1 percent while senior executives and managers saw increases of 7.2



Ong Kian Yew (Executive Director of PIKOM), Muhammad Imran (Director Talent Division of MDeC), Cheah Kok Hoong (Chairman of PIKOM), Woon Tai Hai (PIKOM Advisor & PIKOM Research Committee Chairman), Ramachandran Ramasamy (Head of Policy Capability and Market Research, PIKOM)

percent and 6.7 percent respectively.

The industry where ICT professionals were paid the most was Science and Technology/ Aerospace/Biotechnology, followed by the oil and gas sector. Despite falling crude oil prices in the global market and retrenchment, the oil and gas sector still ranked as one of the top-paying industries for ICT professionals. 📌

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Digital Lifestyle Shifts To Mobile

BuzzCity Digital Lifestyle survey finds more and more Malaysians shifting to mobile for their digital needs

In a survey recently conducted by BuzzCity, a mobile advertising network service recently unveiled that internet users are starting to rely on their mobile devices for productive activities, and this isn't just a trend seen from around the region, but as a whole around the world.

23 countries were surveyed, with each having a sample size of roughly around 4,100 users, as the survey was held from 28th of May to the 15th of June this year. Locally, the survey sees that one in four Malaysian travellers prefer to buy tickets and confirm

room reservations on mobile devices, with one in five Malaysians also going on last minute trips, using these mobile room booking apps to look for reservations.

These numbers tally with the fact that from the survey, 80 percent of online users prefer to browse on mobile devices, with multi-device surfing increasing by five percent from three percent in early 2014, to eight percent by June 2015. What's unusual though, is that while usage of mobile devices have increased, tablet numbers have stagnated. PC users meanwhile have halved from 18 percent to about nine

percent.

That being said, there are a couple of new categories that seem to have made quite a rise in the digital devices market; the wearables and smart TV products. Whilst these devices hardly had any market share in 2014, ever since products such as the Pebble, Apple Watch and Samsung and LG smart TVs have arrived, products in this category have seen a fair number of ownership, which means that content marketing needs to again adapt to the rapid changes of the digital devices market. www.buzzcity.com



A Fingertip Advisor

One-stop services solution launched in Malaysia

be able to enjoy quick and easy home and life style services within fingers reach.

Page Advisor is a unique product that gives consumers the full range of services which includes, sourcing, payment services and also dispute resolution, all within a single package. In Singapore itself, there are

Users would then receive bids of quotes which will reflect the price range as well as the different vendors. Users are able to view the bidders profile before accepting the request as well as check their ratings and user reviews. Payment is then made via credit card upon job confirmation which does away with the need for cash or cheque payments.

Additionally, consumers are also given additional benefits via the Merchant Guarantee Programme (MGP) which allows service providers to sign up for a lower platform free while customers enjoy a full 100 percent money back guarantee. An additional benefit for service providers comes with a free of charge directory and listing to pay a fee once the job is completed. As part of the launch promotion in Malaysia, all jobs completed in July would be 'fee free' for service providers. www.pageadvisor.com

Malaysia has received its very first real-time mobile commerce marketplace platform in the form of Page Advisor which is a mobile application that allow users to receive quotations for services that are otherwise a hassle to deal with normally. Page Advisor's launch in Malaysia follows a successful debut which was first tested on Singapore grounds and now, Malaysians would

more than 100 services to choose from which gives a wide berth of variety.

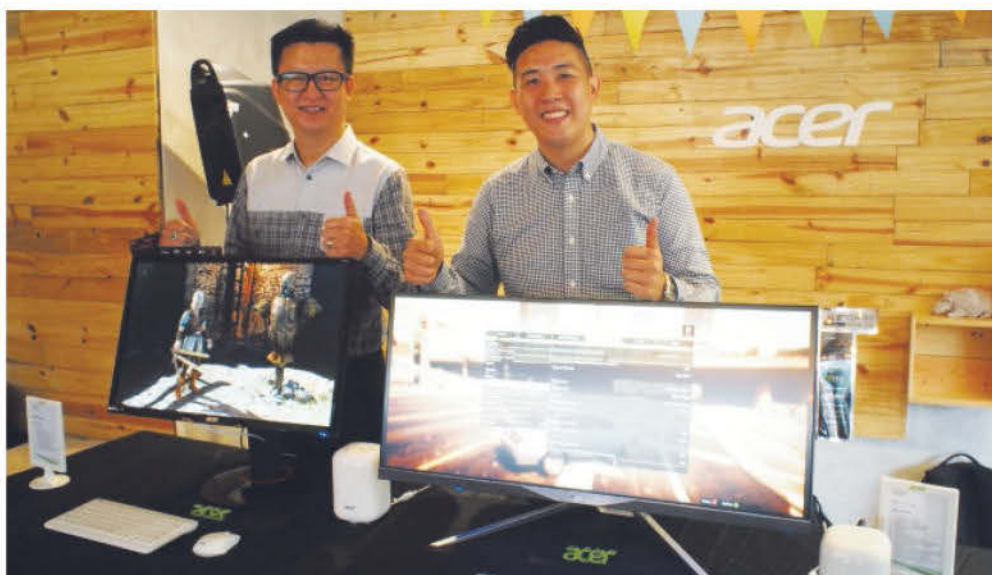
If a user is in need of the services, all they would need to go through are the list of services, answer a series of questions to help improve quotation accuracy and the date and time of the required service. From there, details pertaining to the request would be sent over to the merchant of the appropriate category.

Curve Your Display

Acer brings their first curved monitor to the Malaysian market

Curve is now in, especially for monitors. Thanks to modern manufacturing processes, curved panels now becoming more and more common, and on the road to becoming more affordable in the long run. Acer is one of the companies that is dabbling with first generation curved monitors, and has brought to the Malaysian market the ultra-wide curved monitor XR341CK after teasing it during Computex.

Designed to look futuristic, the XR341CK features a glossy panel and aluminium adjustable base to provide the most optimal and ergonomic viewing experience. It also features a zero-frames design to give the maximum viewing area for the users – even when daisy-chaining it for a truly immersive viewing experience. Thanks to the ultra-wide QHD resolution (3440 x 1440), picture quality



will be off the charts.

Also introduced alongside the ultra-wide is the company's first G-Sync enabled monitor in Malaysia, the XB270HU. Thanks to the technology from NVIDIA, game experience on the monitor will be flicker free and tear-free. At QHD, it is not a 4K display, but it is more than enough for gamers to experience ultra-high resolution gaming of their favourite games.

Lastly, the updated Revo One series also

makes an appearance, featuring new Intel Core i3 and i5 processor for more performance in a small box. It still features three 2.5" drives, two of them hot-swappable. It is perfect for the living room, with resolution support up to 4K.

The XR341CK is retailing at RM 3,699 while the XB270HU will have a sticker price of RM 2,599. The new Revo One will start from RM 1,500 from early August. 🇲🇾

www.acer.com.my

A Roadmap Towards Building Intelligent Cities

MOSTI to collaborate with Cyberview and SAS inc to develop smart cities around Malaysia

The Ministry of Science, Technology and Innovation together with its applied research agency, MIMOS, today launched the National Internet of Things (IoT) Strategic Roadmap, a document that would serve as a guideline for IoT implementation in Malaysia.

Its minister Datuk Dr Ewon Ebin said that the development of information and communications technology (ICT) was closely related to the nation's economic growth; and IoT, being the latest evolution in the technology, was an important deciding factor in the economic and social development of the country.

'IoT implementation in Malaysia is expected to contribute RM9.5 bn to the country's Gross

National Income (GNI) by the year 2020 and RM42.5 bn by 2025," Dr Ewon said. 'In addition, IoT is projected to generate a total of 14,270 high-skilled employment opportunities by 2020," he said.

The event also saw the signing of three Memoranda of Understanding (MoU) between MIMOS and Cyberview Sdn Bhd, CyberSecurity Malaysia and SAS Inc., respectively on developing Cyberjaya as a model 'Smart and Safe City' through IoT implementation.

To initiate the collaboration, Cyberjaya will implement various IoT-based solutions such as smart traffic management system and public safety monitoring, energy management, among



Sheikh Manzoor Ghani, Executive Director, SAS Institute Sdn Bhd, YBhg Datuk Abdul Wahab Abdullah, President and CEO of MIMOS Berhad, YBhg Dato' Sri Dr. Mohd Azhar Hj Yahaya, Deputy Secretary General (Policy), Ministry of Science, Technology and Innovation, YB Datuk Dr Ewon Ebin, Minister of Science, Technology and Innovation at the MoU signing of the National Internet of Things Strategic Roadmap

many others, which can be enhanced and rolled out at a larger scale in due time.


MIMOS Chief Executive Officer Datuk Abdul Wahab Abdullah said that a key goal of the Roadmap was also to create an ecosystem conducive to the IoT industry, while strengthening the capabilities of technopreneurs in the many component layers of IoT.

This is also in-line with the government's aim to have national Internet penetration to hit 75 percent by the end of the year. 🇲🇾

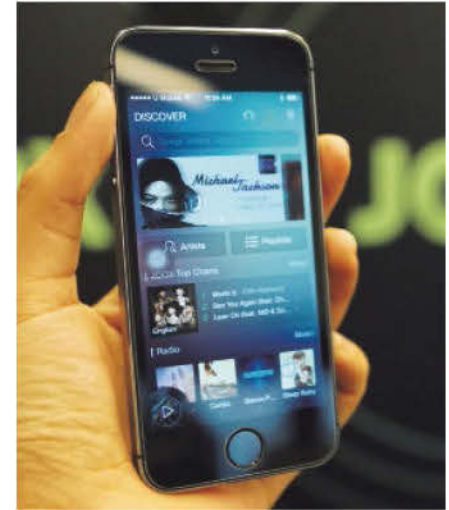
www.mosti.gov.my

Malaysians Getting JOOX-ed

Local musicians and listeners can now rejoice as we have the arrival of the new JOOX BOX which is a unique twist to the music streaming platform as we know it

JOOX is now available to download for free on both iOS and Android devices with an optional RM14.90 monthly fee to access its VIP subscription. First time users who sign-up will each get free VIP service for 30 days before moving back to the standard free-tier. 

www.joox.com



Malaysians can now have vibrancy in their lives as the new JOOX BOX adds a musical beat to your life.

JOOX is a new and unique take on the music streaming platform as it offers a slight twist in digital music subscription. JOOX, is a free, multilingual language music streaming apps which connects music lovers with up to date trends, issues and cultures for a customised playlist in a bid to offer localised and relevant contents which are more connected to Malaysians.

This application is made available in three user interfaces and content selections, such as Melayu Hits, Chinese Hits and International. JOOX delivers an extensive library of local and global music from your favorite artist across Malaysia, Asia and international markets, thus giving users an

endless amount of entertainment sources with an easy to use application. JOOX takes the music experience up a level by offering a distinct local blend of recommended playlist that are handpicked by local music curators based on Malaysian trends and activities as well as new music releases.

'With our many years of innovation in pioneering user-friendly mobile social applications, JOOX's simple and sleek interface will definitely further enrich and amplify Malaysians' music experience. The most unique feature about JOOX is its locally curated music content, that are exclusively created to cater music enthusiasts instead of a one-size-fit all service offerings', said Poshu Yeung, Vice President, International Business Group at Tencent, the company behind JOOX free music application.



Compact 4K Imaging Giants

Sony launches their updated compact models in Malaysia – now with 4K

Professional imaging is a moniker that Sony is becoming more and more comfortable by the day. Apart from supplying imaging sensors to many manufacturers around the world, Sony is also a big manufacturer of imaging products themselves. Their latest entry to the compact camera market brings a more professional imaging experience to the masses.

The compact RX100 IV and high-zoom RX10 II cameras feature the world's first 1.0 type stacked Exmor RS CMOS sensor with advanced signal processing and an attached DRAM memory chip. The high speed signal processing and DRAM memory chip work together to enable more than five times the readout rate of image data and are responsible for a variety of standout features that have previously only been available in selected professional-level video cameras. This includes 40 times super slow motion video capture at up to 960fps, an ultra-fast Anti-Distortion Shutter with a maximum speed of 1/32000 second, high-resolution 4K movie shooting and more.



F1.8-F2.8 lens, while the new RX10 II has the same body design as the original RX10 and feature a ZEISS Vario-Sonnar T* 24-200mm (35mm equivalent) F2.8 lens. Both of the two new models feature an upgraded Fast Intelligent AF system that enables high-speed, high-precision contrast detection of a moving subject in as little as 0.09 seconds.

The new Sony Cyber-shot™ RX100 IV and RX10 II cameras are available in black at suggested retail price of RM3,799 and

RM5,299 respectively. 

Dai Tanaka,
General Manager,

Digital Imaging Division, Sony Electronics Asia Pacific said, 'The new RX100 IV and RX10 II models make a strong statement for Sony, as they break through all existing boundaries of compact cameras, and will allow professionals, hobbyists and enthusiasts to capture images and videos that they never before thought were possible.'

The new RX100 IV maintains the compact, pocket-sized design of the RX100 family, and has a ZEISS Vario-Sonnar T* 24-70mm (35mm equivalent)

www.sony.com.my



Bringing a New Space to Mobile

Samsung Gear VR lands in Malaysia

3D is the next frontier in mobile experience, and Samsung has made strides in bringing the experience to the mobile space. This is evident with their introduction of the Gear VR, for the Note and S6 series, powered by Oculus. Samsung Malaysia Electronic now brings the experience to Malaysia, with the introduction of the Samsung Gear VR Innovator Edition for S6 to the local market.

Nikki Mah, Product Marketing Manager, Mobile Device Accessories, Samsung Malaysia Electronics was on hand at the experience zone, set up in Pavilion where members of the press and public gets a chance to try out the virtual reality headset, designed for Samsung's S6 and S6 Edge.

'Innovation is what Samsung always strives for. As one of the world's leading technology giants, we are proud to bring to Malaysians the latest Samsung Gear VR Innovator Edition.

It's an experience that everyone has to try! The Gear VR was made to bring imagination into reality. The potential is endless and this is the future," said Lee Jui Siang, Vice President, Mobile, IT & Digital Imaging, Samsung Malaysia Electronics.

Powered by Oculus, the Samsung Gear VR can use content that is downloaded from the Oculus Store, as well as content from the Google Play store. The apps from the former are optimised for the Gear VR, as well as featuring tailored experience in 3D.

Controlling the Gear VR can be achieved by using the touch-pad on the sides of the headset, or using the phone's accelerometer to shift control in 3D space.

The Gear VR Innovator Edition is now available from select Samsung Experience Stores, with a retail price of RM 799. Locations of the participating Samsung Experience Stores are as follows:

1. Low Yat (Ground Floor), Kuala Lumpur
2. Setia City Mall, Selangor
3. The Gardens Mall, Kuala Lumpur
4. 1Utama Shopping Centre
5. Pavilion Kuala Lumpur
6. Suria KLCC, Kuala Lumpur
7. Mid Valley Megamall, Kuala Lumpur
8. Sunway Pyramid, Selangor
9. Gurney Paragon, Penang
10. Gurney Plaza Penang
11. Sutera Mall, Johor
12. City Square, Johor

www.samsung.com.my



The Samsung Gear VR on display by a model





Lollipop Takes Over Gingerbread While Windows Phone Steadily Rises

Google sees a bad figure rounding up at ten percent circulation which symbolises the percentage of Android users which are using the latest version of Android, Lollipop. Regardless, the latest operating system has already overtaken the outdated version, 2.3.x otherwise known as Gingerbread. These figures are good news to Microsoft however as they see the percentage as the number of European users with a Windows Phone thus an increase in Microsoft's share of 1.8 percent in 2014. Europe also sees a fast rising circulation of iOS devices which sees a rise of 1.8 percent in user base. Both these systems sees a rise due to the failings of the Android system which sees a plummet of three percent, but remains at a healthy lead with a market share of 68 percent. Around the world, we see fluctuating numbers whereby in France and Italy, Windows Phone sees a market share of 14 percent while in China, Android only holds 8 percent tying with the iOS. In Japan, iOS saw a lead last year but google has since moved past its numbers this year. 🇬🇧

The First 6TB SSD Storage

Fixstars, a Japanese manufacturer has announced the first SSD which has the largest capacity thus far at 6TB which is available in the standard 2.5-inch format. The read/write speed of this device makes the most of the SATA 6 port at 540 and 520 MB respectively. While the record breaking disk can already be pre-ordered, Fixstars has yet to release an official price. This device would be available in the US first. 🇬🇧

Patent Wars : Ericsson Vs Apple

The Swedish network equipment provider Ericsson has just dragged Apple to court based on a claim that states that Apple has violated numerous patent rights on the iPhone 6 in areas such as LTE and GSM services, chip design, and several elements from the iOS. These violations number up to a total of 41 cases. An out of court settlement had also failed leaving a withstanding trial. The patent concerns such fundamental technologies that Ericsson is obliged to license them for everyone under equal terms. 🇬🇧

Sky, Skype, Oh My?

Europeans are getting confused with the popular call service Skype and a pay TV station called Sky which has led an EU law stating that their names are too similar and requires change. This is also made more confusing as the company's logo is a cloud thus reminding people of the sky thus denying Skype the rights to that name. Skype can still appeal to the European Court of Justice. 🇬🇧

NSA Left Open As WikiLeaks Reveals Papers

Whistleblowing platform, WikiLeaks has recently released about 1380 pages of protocols of the NSA inquiry committee public, and this is a vast revelation because until today, no recordings of official investigations have been made freely available. The recordings are usually released only after investigations are complete. However, trial observers or people from the press are not allowed to record any audio or videos but are only allowed to take notes hence the recent leaks would not reveal much secrets. 🇲🇾

eBay Wants A Piece Of The Postage Pie

eBay has announced that with immediate effect, it will now charge a commission on the postage costs of an auction. What this means is that 10 percent of your total amount of sales price and dispatch costs would be pocketed by the platform. This could lead to deals being lost, if the item for sale ends up being lower costs than the shipping costs. Another change in ruling is that power sellers would have to start paying fees after the 21st auction. 🇲🇾

Batteries Of The Future

Elon Musk's Tesla plans to dominate the real estate industry with its latest innovational batteries called Powerwall and Powerpack. Powerwall is a one square meter box that can store up to ten kilowatt hours of power depending on the design and this battery costs approximately US\$3500 (~RM 13324) which can be charged via sunlight, or charged through a normal power supply during the night. In theory, the Powerwall allows your home to become self-sufficient. Powerpack however is designed for spaces such as supermarkets which comes in a higher capacity reaching 100 kilowatts and is even scalable up to 10 megawatts hours. This amount of power would be able to supply a large supermarket branch. Powerpacks do not have an official price yet. 🇲🇾



150 Years Of Nokia

While the last great battle of the American Civil War started on 12th May 1865, a company that still exists was founded on the other side of the globe: Nokia. Fredrik Idestam founded a paper mill near the Finnish city of Nokia. The production of rubber boots and bicycle tyres started in 1898, while the production of cables was introduced in 1912. In 1967, these individual factories merged to form the Nokia Corporation, but it was only in the 1990s when Nokia conquered the world market with its mobile telephones. Later, Nokia expanded its core business to include a navigation service and in 2007 grew into one of the world's largest network equipment provider through its merger with Siemens. And today? After selling its mobile phone division to Microsoft, Nokia is also going to sell the map service Here. However, with the takeover of the network equipment provider Alcatel- Lucent, Nokia will soon become the world leader in network technology again. 🇲🇾



The New Giants

After Samsung's Galaxy S6, Huawei and LG have also done everything to position their premium smartphones at the top this summer. The Chinese company has used metal in its new flagship Huawei P8: aluminum and glass make it possible for this phone, which is currently the slimmest top mobile phone, to fit into your pocket. Inside, there is a in-house developed eight core processor called Kirin 930, which however is no match for the currently fastest smartphone CPUs such as Exynos 7420 which is used in Galaxy S6. In benchmarks, Kirin is behind by about 40 percent. But this is noticeable only when computation-intensive applications are used. Unlike the high-end smartphones from Samsung and LG, Huawei offers full HD instead of a QHD resolution. But, with 5.2- inches, it has a comparable size. At the back, there is a 13 megapixel camera, while there is an eight megapixel camera in the front, both have been developed in-house. LTE is on board too. Huawei has priced its premium phone at about 500 Euros (~RM2100) which is less than what Apple or Samsung demand and much less than what LG would demand for its new G4. The leather look of G4 launched in June. LG has also improved the camera; like Huawei, the front camera has a resolution of eight megapixels, while the rear camera has a resolution of 16 megapixels. So that selfies come out really well, the snaps can also be controlled with gestures and the camera takes four photos in series. The images can be viewed on a 5.5 inch display with a QHD resolution of 1440 x 2560 pixels. A new display technology called Quantum IPS should make the screen 25 percent brighter and the color space 20 percent larger. 🇨🇳



BMW i3: The Moving ATM

The Polish Idea Bank has recently invented a moving, rolling cash dispenser in the form of a BMW i3. This car can be called up via an app and customers can now deposit money installed on the right sided window while payments are not made possible yet. While this service was only made available in Warsaw, the marketing campaign for this service was so successful that the Idea bank now want to test this service in other cities as well. 🇨🇳

Flying Car Fails To Stay Airborne

A flying car made by AeroMobil has made a hard landing during its test flight in Slovakia. Pilot and head designer Stefan Klein fell along with the flying apparatus from a height of 300 meters above the airport of Nitra, The crash was reported to have been caused by a technical error, luckily, Stefan Klein managed to escape without injuries thanks to the parachute being deployed on time. This would mark the first crash of a flying car but its forecasted sale date in 2017 remains unaffected. 🇨🇳


The Google Self Automated Cars Met With 11 Accidents

All is not perfect with the self driving cars of Google as they too can meet accidents. However, these cars have driven over 2.7 million kilometers and out of which 1.6 million kilometres are driven completely autonomously. Thus far, the accident rate of a self-driven car is much less compared to a man driven vehicle on the road. Google further reassures by stating that the accidents made by self-driving cars are never serious. These accidents involves bumping into traffic lights, hitting something from behind, driving past a stop sign, crashed into another Google car. And other cars scraping the Google car. Google emphasises that the self-driven car has often avoided fatal incidents with cyclist or wrong way drivers. 🇨🇳







Windows 10 Is The Final Frontier

While the statement is slightly misleading, as during an in house exhibition, Microsoft has announced that the Windows 10 would be the last Windows. This does not mean that Windows is abandoning their biggest cash cow of the decade, but rather it would be implementing minor updates as time goes by instead of introducing Windows 11. This strategy is similar to the ones Apple has used for its operating system the Mac OS for years. In this scenario, Windows has been broken down into components which can be improved separately without disrupting normal function. The basis would be Windows Core, which should be the same across the board, from smartphone platforms to servers. The first updates are already planned with features that can no longer be included into the final retail version of Windows 10 which is slotted to be released in July due to time constraints. This features would be added on in October via an add-on support for the new browser Microsoft Edge. Another update from Microsoft is the Windows Redstone is slotted to be completed by the next year. It is predicted to make Windows flexible across all platforms from traditional devices to smart wearables and devices. 

Continuum Helps Mobile Transition Onto PC

Windows 10 would now support the Continuum function for smartphones as well, which allows users to connect their smartphone to a monitor via HDMI and connect Bluetooth devices should it be required to use universal apps such as Mail or Office as though it were a PC version, although all data is stored on the device itself. The downside is that Continuum would most likely require hardware which can support multiple displays which would only be possible with future Lumia phones. 

Spotify Losing Money

Last year, Spotify has incurred over 200 million dollars in losses, and it explains that these losses are due to international expansions and introduction of new products. According to some rumors, the platform would soon be introducing a video streaming feature which they have claimed to not conflict with services such as Netflix but as a supplement to the music being played such as music videos and such. This innovations are becoming necessary as competition is rising up since Apple is about to enter the market, and with its influence, persuade music labels to withdraw Spotify licenses 



iOS devices can be put into an endless boot loop with a false certificate

Apple's iPhone and iPad devices can be made to crash by using maliciously-infected WiFi hotspots. This particular issue was discovered by a team of security researchers at an Israeli security firm called Skycure. The company's findings have recently been presented at

Manipulated WLANs Attack iPhones


Apple's iOS devices can be rendered useless via WLAN access using a simple but very effective trick

the RSA Conference in San Francisco, and according to Skycure, the hackers were actually able to do this by installing modified SSL certificates in iOS 8 devices in WLAN networks.

After downloading the certificates, the devices obviously are not able to use the certificate properly, so what would happen is that the apps will often crash, and the phone will be put into a constant reboot loop, rendering the phone useless, unless the phone is in the range of the hacker's WLAN.

Due to this, the researchers have called these WLAN zones as 'iOS-free zones'. The only good news is the fact that whilst the hackers can render the phones to become

useless, they still aren't able to remotely control the affected phones, or steal data from them.

If you have connected to a compromised WiFi hotspot, you should delete the entry from your WLAN favourites list so that your phone does not reconnect to the network. Skycure had already informed Apple about this in the autumn of 2014 and Apple has released a partial fix with iOS 8.3. That said, researchers advise that you should still be especially careful when you connect to unknown public WiFi networks. To protect users, Skycure wants to publish a detailed description of the error after Apple has completely removed the bug. 



Data Theft Of The Month

SALLY BEAUTY: CREDIT CARD DATA STOLEN

American beauty products supplier Sally Beauty has recently confirmed that its payment system has been jeopardised by hackers. It is possible that they have access to its customers' credit card data. Users who have made purchases in the shops of this chain in the last few months should check their credit card bills and immediately report any discrepancies to the banks.

MSPY: MOBILE PHONE LOCATION DATA LOST

Software manufacturer mSpy currently offers a software program by the same name that allows parents to monitor and locate the smartphones of their children, which sounds like a pretty good idea. What's not so good however, is that the company's cloud-based database was recently hacked, with 400,000 users of the phone-locating software affected. The stolen data not only includes location data but also information about use-behaviour, used Apple IDs in iOS devices and 145,000 payment transactions for the use of the software.

LANDSBERG MUNICIPALITY: MINUTES OF THE MEETING ON THE WEB

Non-public minutes of a meeting of the municipality of Landsberg am Lech were released online due to a software error. The reason for this was a configuration error of release rights. The documents were freely accessible on the web for months together. According to the municipality, this occurred because of internal processes, which are now being revised.

Keep You Android Devices Secured with Kaspersky

Kaspersky Internet Security For Android gains recognition from independent test labs

The most recent testing by Germany's AV-Test Institute made an overall assessment of the solution's effectiveness in May 2015. Firstly, it examined how the security solution reacted to 2,741 malicious applications, 1,969 legitimate applications from Google Play Store and 977 trusted applications from third-party sources.


In addition, AV-test experts examined how the security solution affected the device's performance. Overall, Kaspersky Internet Security for Android successfully detected 100% of threats without a single false positive. Researchers also found that the solution had no noticeable impact on battery life, the device's performance or Internet connection bandwidth. As a result, the solution scored the highest six points

in both test categories, Protection and Usability, and received 'AV-Test Certified' award.

China's PC Security Labs ran a test on Kaspersky Internet Security for Android in April and published its results in late June. This test employed 2,435 fresh malware and legitimate applications, which were recorded on the device's SD card before the security product was installed and updated. Malicious files were only run manually if the security solution did not have the on-demand scan feature.

Failures to detect threats during the scan and false positives reduced the final scores for each product. Kaspersky Internet Security's final score came in the 98-100 range, earning it the top award – a five-star certificate.

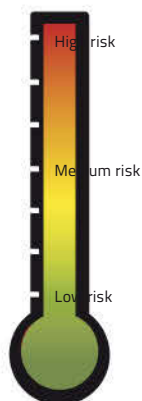
Last, but not least, Austria's AV-Comparatives published an overview report of its March testing without announcing any awards. A collection of 4,523 malicious applications belonging to 125 of the most widespread malware families was used to test the security solutions. First the experts scanned the entire set of APK files using an on-demand scan.

Then they attempted to manually launch each of the undetected applications, allowing the security solutions to use their real-time protection systems. Kaspersky Internet Security detected 99.6% of all threats. The false positives count was not included in the final score, as Kaspersky Internet Security for Android, like most of its rivals, did not trigger any. 



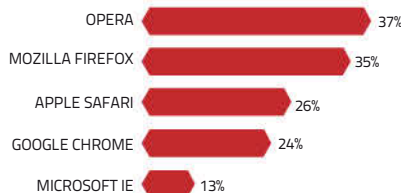
Danger Barometer

64 percent of bankers interviewed in a FICO report say that they are not ready for an unprecedented hack attack



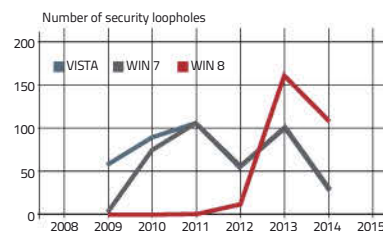
Open bugs in browsers

Opera and Firefox are the most endangered browsers. Only Opera has still not eliminated 37 percent of the known bugs



Version 8 is the most unsafe Windows version

A report by Secunia shows that the maximum security loopholes were discovered in Windows 8 in the past years.



Number of the Month:

400,000

mSpy users had their accounts containing Apple ID, usage pattern and payment transactions stolen by hackers

Better To Be Safe Than Sorry

64 percent of bankers feel unprepared for cyberattacks

As incidents of cybercrime continue to make headlines across the globe, financial institutions are giving more attention to cybersecurity, but a new survey by FICO suggests that APAC banks may be lagging. In a survey conducted at FICO's Asia Pacific CRO Forum, 64 percent of senior bank executives from the region said they feel unprepared for cyber-attacks today, despite cybersecurity being a clear priority for them.

According to a 2014 PwC report, cybercrime is the second most prevalent economic crime faced by financial institutions and 36% of people in financial services expect to experience cybercrime in 2015. FICO's survey shows that while cybersecurity has become a top priority for leadership, APAC banks may not be up-to-date on the latest technology. 58 percent of respondents in the FICO survey said they had not heard of a predictive analytics alternative to


traditional rules-based SIEMs.

According to FICO's survey, only 41 percent of APAC banks have a cyber-incident response capability in place. 34 percent of respondents indicated that they didn't have any such capability or they were still considering putting one in place. A final 22 percent were currently developing their response capability.

The survey was conducted at the 2015 FICO Asia Pacific CRO Forum, held earlier this year in Bangkok, Thailand. A total of 34 senior risk officers and banking executives representing 23 financial institutions across the region participated. Dan McConaghy, President of FICO Asia Pacific, said, 'For many banks, cybersecurity is a shared domain of the IT and Fraud departments. In order to effectively combat ever-evolving cybercriminals, it is necessary for financial institutions in Asia Pacific to connect fraud and cyber information,



systems and investigations. This holistic approach is needed to limit damages to customers, systems and the bank's reputation."

FICO has leveraged extensive IP assets from its banking technology, including streaming analytics and anomaly detection techniques used within its market-leading FICO Falcon Fraud Manager software, for the creation of an analytics-driven cyber security solution that is highly differentiated from current industry offerings and complementary to existing infrastructures and investments 

Offering Solid Protection Against DDoS Attacks

Akamai Identified As A Leader In DDoS Services By Independent Research Firm

Akamai Technologies announced the company has been identified by Forrester Research, Inc. as a Leader in The Forrester Wave: DDoS Services Providers, Q3 2015. Akamai received the highest score in Market Presence and tied for the highest score in Strategy.


Akamai's Distributed Denial-of-Service received the highest score possible for alert notification process (DDoS monitoring service), response tactics (after the attack is detected), attack types defended, defended network protocols, and the second highest score for defense tactics (prior to an attack) and standard mitigation times.

'There is no longer a clear distinction between doing business online and simply doing business. If you're not online, you're not doing business,' explained Stuart

Scholly, senior vice president and general manager, Security Business Unit, Akamai. 'Unfortunately, bad actors are all too aware of this phenomenon and have become adept at using DDoS as a means of hindering access to this important business channel. We believe Akamai's position as a leader in the Forrester Wave: DDoS Services helps instill in our customers confidence that our DDoS mitigation capabilities can help keep them online and highly available even in the face of the most daunting attacks.'

Akamai's DDoS mitigation solutions are designed to offer advanced protection against the largest and most sophisticated attacks and safeguard websites and other Internet-facing applications from the risks of downtime. Built on the Akamai Intelligent Platform Akamai DDoS mitigation solutions

are intended to provide the scale necessary to stop the largest DDoS attacks without reducing performance, as well as offer intelligence into the latest threats and the expertise to adapt to shifting tactics and attack vectors.

Furthermore, as one of the only vendors in the space to offer a Time to Mitigate Service Level Agreement (TTM SLA), Akamai stands behind the experience and expertise of its Security Operations Centers' ability to mitigate an attack within a specified timeframe. 



Management Strategies from "How Google Works"



Google's non-traditional management formula is not easily copied, but managers should pick up hints from them on how to better manage resources

By Edwin Lee Yong Cieh

A practising lawyer specialising in telecommunications, media & technology law, Edwin is in a constant effort to educate users on the many legal happenings in the IT world

Many people at one point in time must have wondered how Google works in the Internet Age. Eric Schmidt (former CEO and now Executive Chairman of Google) and Jonathan Rosenberg (former SVP of Products and now advisor to Larry Page, Co-founder and CEO of Google) explain the secrets behind this iconic company in their new book, 'How Google Works'.

This is not a book which reveals how Google's algorithm works, but how the company is managed. It is a book written by two most senior executives at Google which provide some thought-provoking management strategies that can be adopted and implemented by any company in any industry.

Talent

As a company that continues to push the boundaries of what is possible with technology and innovation, Google does not settle for less when it comes to hiring the best talent. Google focuses on

bringing the best people (whom the authors describe as 'smart creatives') into the company, even if their experience might not match one of the open roles.

According to the authors, the only way for businesses to consistently succeed today is to attract smart creatives and create a conducive environment where they can create superior products, as Google believes that 'a workforce of great people not only does great work, it attracts more great people.' (Note: Google has been consistently ranked No.1 on Fortune's 100 Best Companies to Work For).

First, you have to make your company a place smart creatives want to work and give them a large degree of autonomy. This is particularly attractive to Gen-Y or the Millennials, who will make up 50% of the workforce in the next few years. You should also hire people who are adaptable to change and are passionate about continuous learning. The world is changing so fast across every industry that only those who keep learning and those who have critical thinking can thrive at scale.

Culture

Google emphasizes on planning a culture when starting a new company or initiative. Smart creatives care about the place they work. You should design your office to maximize interactions and

energy, not for isolation and status, as smart creatives thrive on interacting with each other. Live up to your own slogans. Do not leave it to the PR department to come up with a typical mission statement that not even your own employees believe in the words.

Google's 'Don't be evil' mantra allows any employee to voice his objection if he thinks the proposed idea goes against Google's values and aspirations. The ultimate objective of having a well-established and well-understood company culture is that it should form the basis for everything the company does, and it should be deeply felt by the employees.

Empowerment

Many companies talk about empowering their employees, but sadly, many do not practice what they preach. Google encourages their smart creatives to think extremely big of what they call the 'moonshot thinking' i.e. to think 10X (read: ten times better), not just 10% improvement. Such principle gives the smart creatives much more freedom and motivates them to do thing in an entirely new and innovative way, not just improve on what already exists.

Google also encourages smart creatives to set audacious, unattainable goals, and then fail well, so that the smart creatives can learn from their mistakes that can help develop the next product. As Larry Page says, 'If you hire the right people and have big enough dreams, you will usually get there. And even if you fail, you will probably learn something important.'

Innovation

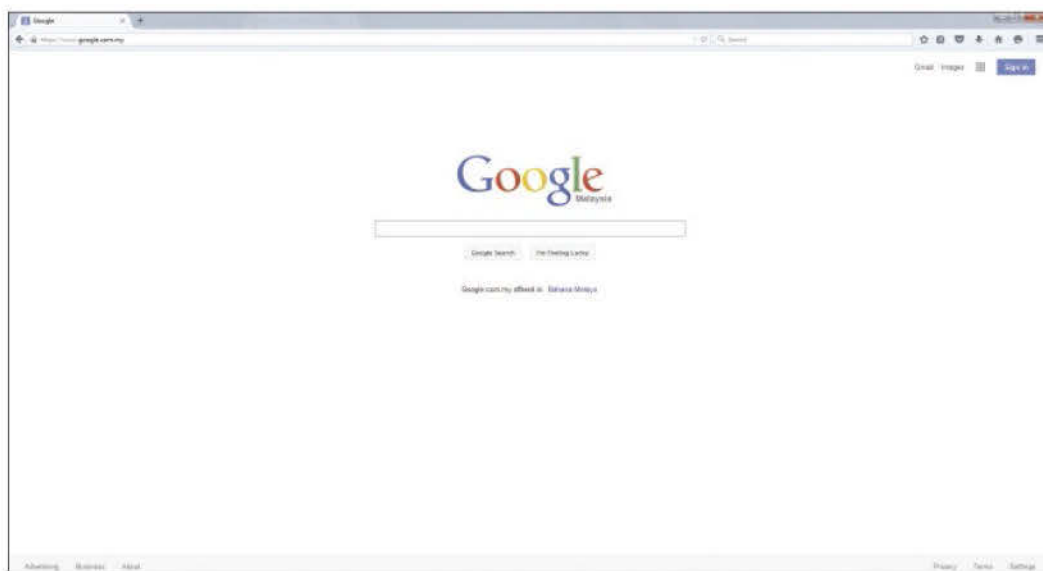
Google is a business that is essentially built on innovation. Google's definition of 'innovation' is not about trying to improve on an existing way of doing something, or giving customers what they ask for, but rather it has to be something that is new, surprising and radically useful.

Google's main focus when it comes to product strategy has always been on the user. Google recognizes that power has shifted from companies to consumers, and expectations have never been higher. 'Companies can't get away with having crummy products. Bad product reviews trump clever marketing tactics easily,' the authors write.

Innovation is not just about coming up with innovative products. Innovative ways of doing business can also help companies to thrive and excel.

Decision-making

The authors claim that 'most forward-thinking companies tout their consensus-driven approach, but they fail to understand what



consensus means." Consensus is not about getting everyone to say yes in a meeting, it's about giving everyone a chance to be heard and getting the best idea from the discussion, based on data and sound arguments, not the highest-paid person's opinion (they call that as 'HiPPO').

Strategy

Most new ventures start off with a business plan. The problem, as the authors note, is that things are changing so fast that any MBA-style business plan is doomed to fail. Smart creatives fear that a formal business plan will hamper their freedom. Therefore, you should base your venture on a strategic foundation, not on a business plan, because plan is fluid whereas foundation is stable.

The authors opine that 'most companies today are run to minimize risk, not maximize freedom and speed.' In the Internet Age, being slow and risk-averse do not work. Competition is getting much more intense nowadays as more people have access to information, connectivity, computing, manufacturing, distribution and talent. We live in the Internet Age, where everything is working at high speed. Companies that dream big or want to do things differently have to have a 'grow big fast' strategy, because growing methodically and organically is just too slow to create big impacts.

Larry Page says in his foreword to the book that, 'many companies get comfortable in doing what they have always done, with a few incremental changes. This kind of incrementalism leads to irrelevance over time, especially in technology, because change tends to be revolutionary, not evolutionary.'

As Heraclitus, a Greek philosopher once said, 'change is the only constant thing in life.' The world is undergoing major transformation where technology is changing our lives and disrupting every business sector. If companies do not embrace change, they are likely to fall through the cracks and get eaten up by their competitors in today's challenging economy. 📖

Edwin has read at least 3 different books about Google, and found this particular book to be the most interesting, informative and fun to read.

MSI X99A Godlike Gaming

There is a new benchmark in town. MSI, a brand well known for creating innovative and creative products, has come out with a new motherboard that will be the ultimate motherboard for anyone to own – at least for the moment. It is called the X99A Godlike Gaming, and it is a doozy

By CHIP Team

Mystic Light

One of the first motherboard with built-in RGB LED lights in the board itself, you can easily customise and set up your own colour scheme depending on your preferences. You want it red hot? Cool blue? Warning yellow? It is all achievable through the Mystic Light application – on your PC, phone or even your tablet. Select and colourise your life!



Heavy Metal (Armor)

With hefty graphics card becoming the norm, your motherboard may not be up to par in supporting it in your case. That is why the X99A Godlike Gaming is design with this in mind. To cool, protect and highlight the motherboard, heavy plated armour is used. Steel Armor on the PCI-Express slot has more solder points on the PCB for more strength and protects the PCI-Express signals against electromagnetic interference for a stutter-free gaming experience and higher GPU overclocking. Around the motherboard, Dragon Armor is used to shield vital components from interference as well gives the board a distinctive tailored look for gaming.

Fast Transfers Every Time

Godlike Gaming comes with USB 3.1 built in – but a first amongst the manufacturers, it will come with both Type-A and Type-C variants of the fast speed USB connectivity. While the Type-A port allows backward compatibility with your current USB devices, the new Type-C port features a reversible connector that makes connecting your devices easy – regardless of your cable's orientation! Plus, with transfer speeds of up to 10Gbps, you know your file will be transferred in a jiffy.



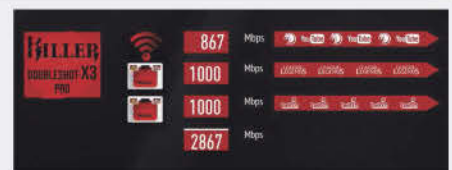
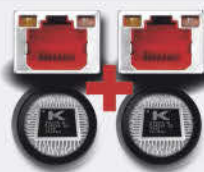
Overclockers Gaming Paradise

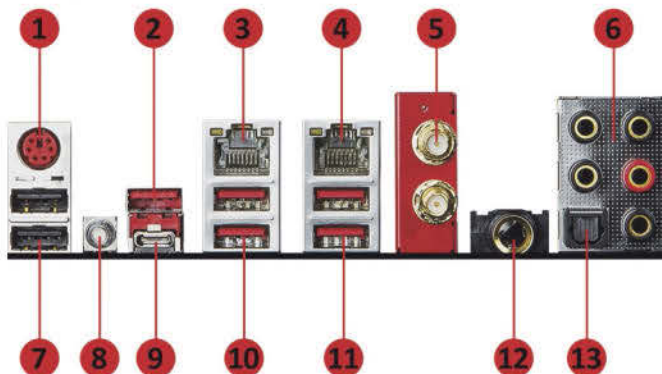
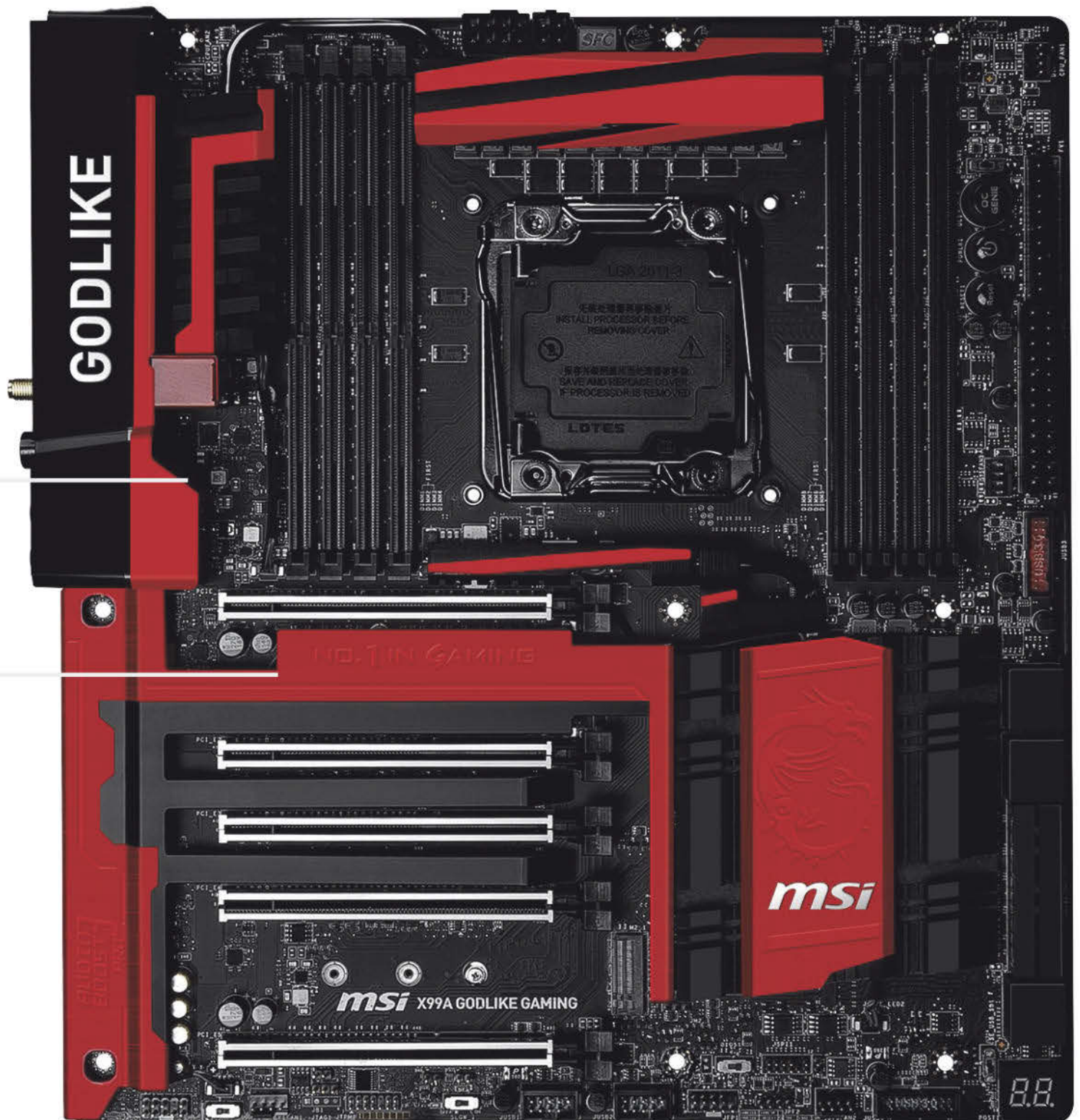
Thanks to the wealth of OC features built into the board, you can easily outperform your competition in a matter of a couple of clicks. The MSI Gaming App allows simultaneous control of both your Motherboard and Graphics Card's overclocking. This allows you to tune the system to your pleasure without any technical knowledge of overclocking.



Better Than Best Networking

Thanks to Killer's Double Shot-X3 Pro networking solution, you will not be bogged down by your internet speed anymore. The Killer DoubleShot-X3 Pro allows the two Killer Ethernet connectors and the Killer™ Wi-Fi adapter to work together for the ultimate high speed attack. The Killer Network Manager decides which apps runs on which connection for gaming traffic optimization. This will give you the max throughput as high as 2.867 Gbps, making your multimedia and gaming experience a much more surreal and better one.





1. PS/2 Gaming Device Port
2. USB 3.1 Gen2 Type-A Port
3. Killer™ LAN Ports
4. Killer™ LAN Ports
5. Killer™ Wi-Fi Connectors
6. HD Audio Connectors
7. USB Gaming Device Port
8. Clear CMOS Button
9. USB 3.1 Gen2 Type-C Port
10. USB 3.1 Gen1 Ports
11. USB 3.1 Gen1 Ports
12. 6.3mm Hi-Fi Audio Jack
13. Optical S/PDIF Out



Set-up Your Hardware Perfectly

The factory settings of most devices usually represents a compromise. Let us teach you how to optimally adapt a device to your requirements By Christoph Schmidt & James E. Curtis

Configuring a TV Set



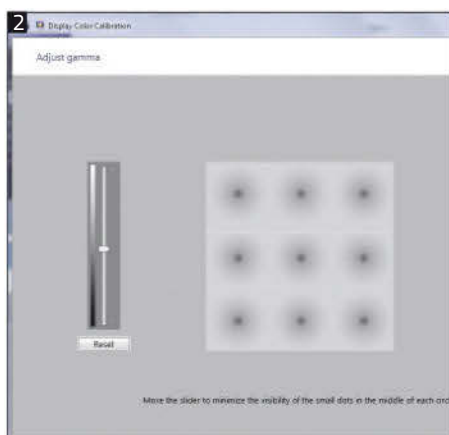
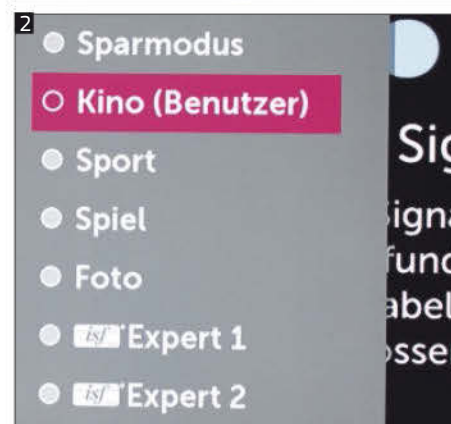
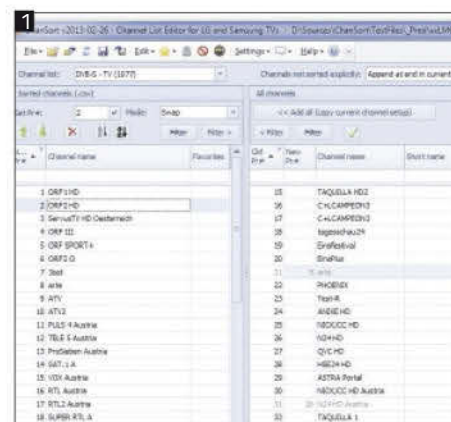
When it comes to a new TV set, there's a lot that must be done before everything starts running smoothly. Even if you do not wish to use the networking functions of the device, you should use a LAN or a WLAN to connect it to your internet router, in order to ensure that the firmware is up-to-date.

If you have a cable and satellite connection, the channel auto search function will generate hundreds of channels. In case of most devices, it usually takes several hours to select and sort these channels. This task becomes a lot easier if your TV set can export the entire list of channels to a USB stick. A tool like ChanSort **1** makes it possible to use a PC to quickly and comfortably adjust this list, which can then be saved and re-imported into the device with the help of a USB stick. Check with Chansort whether this can be done for your TV set (certain series from Samsung, LG, Panasonic and Toshiba), and how the export/import operation works. When it comes to other TV sets (such as Philips devices), unofficial channel list editors can be found on the internet.

The optimal picture settings differ vastly

from each other, depending on the user's individual tastes – Accordingly, you will have to try out the settings on your own. First, test the various picture presets like 'Standard', 'Brilliant' or 'PC', in order to find the best basic setting. The 'Theatre' setting **2**, usually looks the most natural. It does away with excessive image smoothing and loud colours.

Now, based on your preferred pre-set, adjust the brightness to a pleasant level that is compatible with the ambient light conditions. The brightness sensor should be activated, as it's good for the eyes and useful in terms of energy conservation. After the brightness, adjust the contrast and the sharpness such that bright and dark spots are well-traced and the image looks sharp, without being grainy or displaying double contours. Then, adjust the colour intensity – if the theatre setting has been used as a base, you will often be able to increase the colour intensity. If you watch sports channels often, you should try out the motion optimisation function ('Motion Plus' for Samsung, 'TruMotion' for LG etc.).



Adjusting a PC monitor



PC screens are usually too bright out of the box, which can lead to headaches in darkened environments. Before you adjust the brightness and the contrast, you should check whether the correct gamma value has been set for the monitor – the correct values are 2.2 and 2.4 for Windows and MacOS, respectively. If no numerical value is displayed, you should select a mid-level setting.

Most monitors feature colour presets, which may be 'Warm', 'Cold' or 'Daylight'. If you are processing images, the 'sRGB' preset (which every PC monitor is supposed to feature) enables you to avoid many potential problems. Otherwise, you should simply select the preset that looks neutral in your environment, i.e. the present that displays no colour casts in white and grey surfaces. The brightness should be down-regulated such that the monitor does not overexpose **1** even if the image contents are bright. The contrast should be configured in a manner that ensures that all the details in the bright and dark image regions remain visible and distinguishable from each other. If the monitor is also going to be used to play **action games** that require fast response times, you should

take a look at its menu to find out whether it features an 'Overdrive' function. When this function is activated, it makes for a sharp and streak-free picture, which is desirable for most applications. However, it can also result in a ghosting effect, which is why you should deactivate it and tolerate a small amount of streaking when you are playing first person shooters.

Perfectionists can carry out a fine-tuning operation under Windows when the monitor's basic setting is as it should be. This involves adjusting the video display of the operating system to fit their needs. From Windows 7 onwards, this can be done with the help of the "Display colour calibration" assistant, which can be launched by pressing [Win]+[r] and entering "dccw". You should then follow the instructions step by step. If the first step, i.e. "Adjust gamma" **2**, reveals that the setting range of the sliding controller is insufficient to ensure that the little points merge with their surroundings, it means that your monitor has been configured to be too bright or too dark. Reset the sliding controller, tweak your monitor's brightness level to ensure that the points are approximately as bright as their surroundings.

Checking the Android Settings



An assistant is launched when an Android device is started up for the first time, and this assistant is used to make certain adjustments. When the assistant programme has run its course, you should call up the settings that we have described in this section, using Android 5.0 Lollipop as an example.

WLAN is the first sub-menu that is helpful in terms of cutting costs and saving energy. You should set up and (if possible) use every WLAN that you can access; this spares your expensive mobile data contract and conserves the battery as a connection to a nearby WLAN router consumes less energy than a connection to a remote mobile phone tower. Under 'WLAN (advanced)' (which can be reached via the three points in the upper-right portion of the WLAN menu), you should deactivate "Scanning always available" - Otherwise the WLAN module stealthily consumes electricity even if it has been turned off **1**. The next menu point is 'Bluetooth'. We recommend that this be activated only when necessary, with the help of the quick settings (which can be accessed by swiping from top to bottom on the start screen).

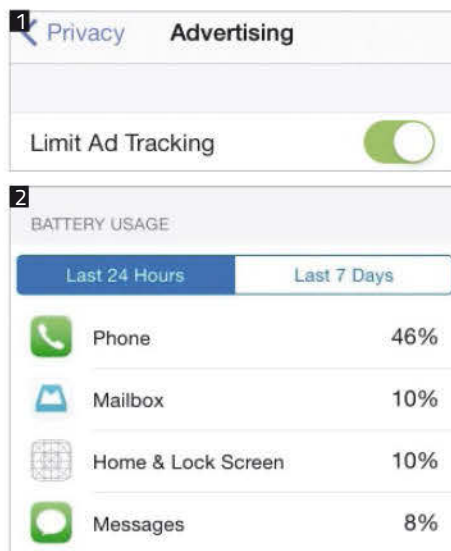
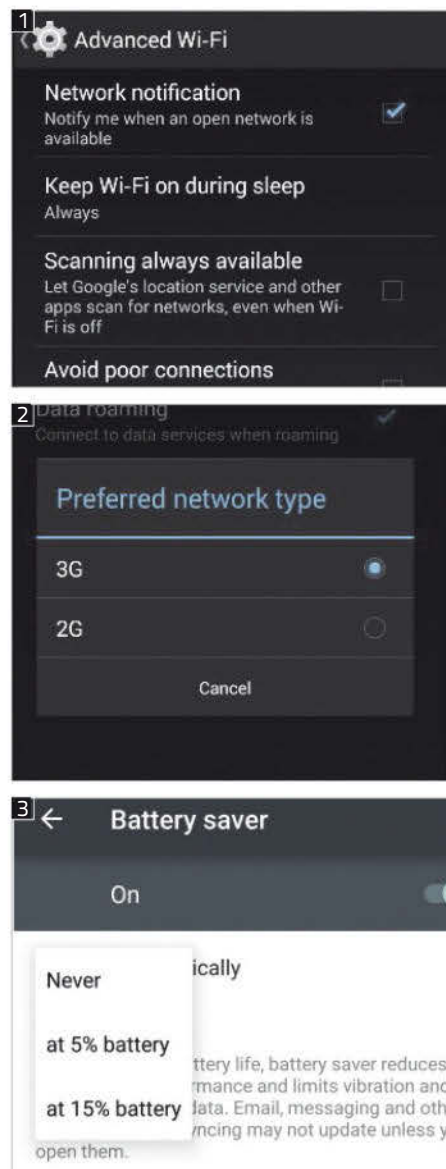
You should deactivate data roaming under "Data usage | Mobile phone networks". This should only be activated in the presence of an inexpensive solution for the usage of data in foreign countries. Otherwise, a simple layover in a foreign country with this turned on will be wallet breaking. Under "Preferred network type", select the best option that is supported by both your mobile phone and your network **2**. Now, it is true that data transfer

operations consume less energy in the 2G mode than they do in the 3G and 4G modes. However, since the data transfer operations that use the faster techniques last for a much shorter period of time, they end up conserving battery power.

Now, select a low brightness level and activate the "Adaptive brightness" function under the display settings. Set the "Idle state" to a period of about two or five minutes, and use the lock key to turn off the display when it is not needed. The energy-saving mode (under "Battery | ... | Energy-saving mode") is a feature that extends the battery service life. Click the "Activate automatically" option and select "When battery is at 15%" **3**. Energy-saving features will now become active when the battery level reaches a low point. These energy-saving features significantly extend the remaining service life.

The user management system is quite useful for Android devices, if the device is used by many people. Click the "User" and "Add user" options in the settings section. Android will then create a second user environment that cannot access the first user's data and settings. Later, after the device has been unlocked, swipe downwards from the upper edge and tap the user symbol in the upper right corner. Android will then be ready with the respective start screen and data (including game statuses etc.).

Your smartphone constantly tracks your whereabouts and sends this data to Google. Those who do not want this to be done should deactivate the "Location" option. If needed (e.g. for navigational purposes), you can re-activate it using the quick menu.



Optimal Configuration of iOS




After you have closed the setup assistant, you should activate LTE, if your contract supports it. In comparison with 3G networks, it has better surfing speed and handles the battery's energy in a more efficient manner. To do this, open the "Settings | Mobile network" section. This section also allows you to deactivate the roaming function, so that you won't accidentally roam when you are abroad.

You must create an Apple ID in order to be able to install apps. However, the procedure asks for credit card information. In order to ensure that you don't have to provide this information, you should first install a free app and wait until you are asked to specify a payment method. Select the "None" option,

which is right next to the usual payment methods such as Visa and MasterCard. You will then be able to purchase apps using prepaid cards.

You can avoid advertising tracking by deactivating the facility associated with interest-based advertisements. To do this, activate "Settings | Data protection | Advertising | No ad tracking" **1**. For optimal battery service lives, access the "Settings | General | Usage | Battery usage". You will now be able to identify the app that places the largest load on the battery **2**. You can then deactivate its power-guzzling features (e.g. GPS tracking) or uninstall it. If you need a full battery quickly, you can reduce the charging time a little by switching it off.

Initialising a Notebook

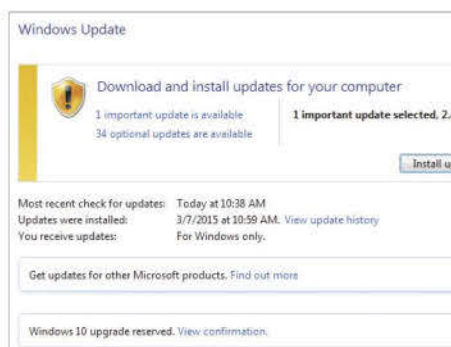
 During the very first activation procedure, Windows 8 will launch the setup assistant. There is a well-hidden option that allows you to withhold your e-mail address from Microsoft: Click on "I already have an account", followed by "Log in without a Microsoft account".

It makes sense to install all the updates after the basic settings have been taken care of. This can take longer than an hour. In order to ensure that all the updates are installed without the computer switching over to the idle mode, select the "High performance" power plan, under "Control panel | Hardware ... | Power options". Now, look for the "Windows Update" option in the start menu. Select "Look for updates", install all of them and re-start your notebook. You may have to repeat this procedure a few times, because Windows does not display all the updates the first time.


Access the control panel, and select the "Balanced" power plan for daily use. This plan can be modified. To modify it, click the "Change plan settings" link that is right next to the active plan, followed by "Change advanced power settings". Now, adjust the stand-by

times of the display or the computer. In case of notebooks, the "Save energy | Allow hybrid standby mode" option should be active during battery operations, in order to prevent data losses when the battery level is low.

You should absolutely replace the virus scanner that has been pre-installed by the manufacturer, since such virus scanners often expire after a period of 60 days, where they stop downloading updates and irritate the user by generating advertisements incessantly. Instead, you should install a good security suite. Such security suites can also be obtained for free.



Activating NAS Features

 Your NAS must operate with the newest firmware, so that it will offer the highest degree of security and all the features. If you did not install the latest version during the initial setup process, you should use the web interface to look for updates. In order to prevent external parties from accessing your NAS, you must change the standard password of the admin user to a secure password.

The drives must be configured optimally before you copy large quantities of data onto the NAS. When it comes to 1-bay devices, there really isn't anything that needs to be borne in mind – These devices should, on account of the lack of system stability, only contain copies of data that is also being stored on the PC or an external hard drive. An NAS with two hard drives should either be configured as RAID-1, which reflects the data on both drives, or JBOD ('just a bunch of disks', which is better than RAID-0), in order to use all the memory space. However, a JBOD should also only be used to store backup copies of data that is being stored elsewhere. If the scenario involves three or more hard drives, we would recommend using a secure, large and fast RAID-5.


To conserve electricity in a scenario

involving, for example, a Synology NAS, you should create a power-saving plan under "Control panel | Power | Other settings". The power-saving plan specifies when your NAS should be in operation.

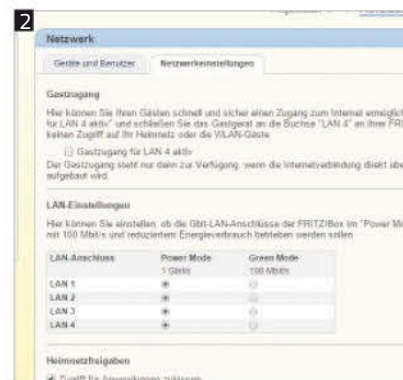
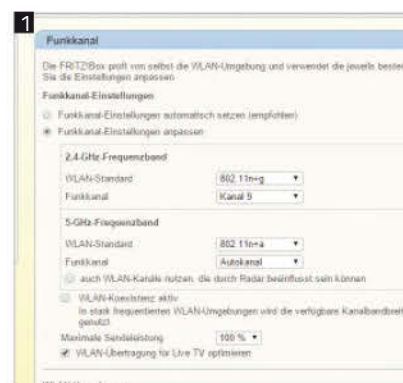
The next step involves activating useful services, which can be found in the control panel of the NAS – In case of Synology, they can be found in the "Packet manager". In this regard, the 'Download Station' is an important and useful tool. Together with the Synolocker plug-in for your web browser, it facilitates direct download operations for the NAS. 'QuickConnect' is useful for remote access. It allows you to access your NAS from outside your home network without any router configuration operations.



Securing a Router

 Some routers are delivered with generic passwords for the web interface and the WLAN. If this is the case – or if you have created simple passwords containing eight or fewer characters – you must select customised and secure passwords containing twelve or more characters, so that undesired users will not be able to hijack your router. In most routers, you can change the WLAN password by entering the IP address that is usually printed on the bottom of the device into your browser's address bar and navigating to the "Settings | Advanced settings | WLAN | Security" section in the web interface that pops up. The password for the web interface itself can be changed under the "System" tab.

To conserve energy, you should create a schedule that automatically activates and deactivates your wireless network under "WLAN | Interval timer". If some of your clients support the 5-GHz band, you should activate **1**, it under "WLAN | Activate wireless channel", in order to increase the speed for all the clients. There is also a need for optimisation when it comes to the cable LAN. **2**



Maxing out a Digital Camera



You can never go totally wrong with the standard settings of most digital cameras – however, you do have to re-adjust a few things to obtain optimal results. To achieve that, you should call up the menu and go through it. With cheaper and larger SD cards available now, you should always set the image size and the image quality to their maximum level. You should save JPEG and RAW files simultaneously if your camera allows that **1**. You don't need to archive all the large RAW files, but if a particular photograph turns out to be exceptionally beautiful, you or a photo lab will be able to get the highest level of quality out of the respective RAW file.

Most compact cameras automatically regulate the ISO setting in a manner that ensures that the images do not get blurred **2**. If the lighting is weak, this often leads to thoroughly noisy or low-detail images. It makes more sense to deactivate the ISO-related automatic system and manually select a somewhat lower ISO setting (e.g. ISO 100 or 200). If the light is faint, you can support the camera on a fixed base or use the flash.

Select the other settings depending on the motif. For example, if the scenario involves fast action, you should switch from single image capture to the burst mode. If a situation involves mixed light sources, and you can see from the screen that the camera

is producing disruptive colour casts, then you should access the menu and try out the white balance settings for daylight, shadows, artificial light etc. When it comes to critical motifs, one of these options usually works better than the automatic system. The cameras' scene programmes produce impressive results in situations involving special photographs, such as photographs taken in the evening or at night.



Optimising an HD Receiver



For an optimal HD image, your HD receiver must be connected to your TV set via an HDMI cable. The video output format of the receiver should correspond to the source material, so that the TV set will scale the material to its native display format (e.g. full HD or 4K) – since the TV set can mostly do it better than a generic algorithm in the receiver.

You should run an audio mixdown operation if you do not have a 5.1 system. This function calculates a stereo signal for 2.0 systems and makes it compatible with many TV sets. Depending on the receiver-manufacturer, navigate to the audio section of the settings menu and select 'PCM' as the HDMI sound output.

A scarcity of storage capacity is a shortcoming of several HD receivers. This can be remedied with the help of an external hard drive, which you can connect to the rear side of your receiver using an eSATA or USB cable.

In case of several models, the hard drive is then detected automatically, after which you are free to store more movies.

After the channel search operation has been completed, the next step involves selecting and sorting an enormous number of channels. Refer to the manual to find out how this can be done quickly.



Tuning an e-reader



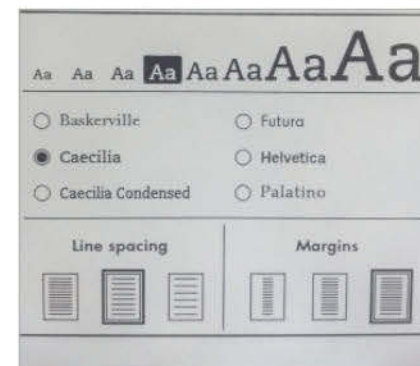
E-book readers like Kindle are usually fully set up and linked to the user account at delivery.

Nevertheless, you should still go through the settings step by step. What's most important is the correct brightness level of the illumination system, provided your reader has one. Many users make the display too bright. The optimal and least tiresome scenario would be one in which the illumination system does not glare in a dark environment – during the daytime, the ambient light is sufficient.

The font size should be adjusted such that you can read the text without having to scroll too frequently. The same principle applies to the margins and the line distances. If your books come from different sources, you may have to adjust the settings again for each book. Those who require an especially large font should check whether the device depicts lines that are longer and easier to read in the landscape format.

To conserve the battery, you should ensure that you only activate the WLAN when you really need it – Such as in a situation in which you need to load new books. Some readers offer the option of choosing whether the pages should just be updated or set up anew during scrolling operations. The latter option produces a somewhat cleaner-looking result, but it takes more time and puts a heavier load on the battery. The other settings have less of an influence on the battery service lives.

Those who frequently use the reader when they are on the move should assign a password, in order to block out outsiders. However, this can be a bit annoying in the long run. In case of the Kindle, it would be more useful to activate the child safety mode. Then, if you lose the device, people will be able to scroll through your books, but they will not be able to make purchases in the Kindle shop.





WhatsApp

In just five years, WhatsApp has grown to become the most popular messenger program in the world. Their numbers don't lie, as we list it all here By Caren Stella Geiger

Company start-up date	24th February 2009
Founders	Jan Koum and Brian Acton
Release of the first version of the messenger	Summer 2009
Active users in the summer of 2012	200 million
Active users in April 2015	800 million
Daily user addition (as of: April 2015)	1 million
Downloads of the app per second	12
Malaysia's active WhatsApp user base	75 percent of total internet users
Messages sent per day	30 billion
Chat messages in an hour	1.25 billion
Photos sent daily via the messenger	400 million
Total volume of data sent via WhatsApp daily	4330 TB
Costs for WhatsApp usage after the first free-year	89 cents
Price paid by Facebook in February 2014 for taking over WhatsApp (in US dollars)	21.8 billion
Jan Koum's estimated share of the company	6.8 billion
Meaning of the name	Pun on the words "app" and "what's up?"
Number of WhatsApp employees before it was taken over by Facebook	55
Number of Facebook employees	9,199
Significance of one tick	Message has been successfully sent to the server
Significance of two ticks	Message has been successfully sent to the receiving device
Significance of blue ticks	Message has been read by the recipient or the chat has been opened

Everyday NFC

The short-range transmission technology is the current fad, and has been incorporated into several devices – but it is not being used as frequently as many hopes. CHIP gives you ten good reasons to start using it more By Jörg Geiger



Make payments quickly

The most popular example of the use of NFC involves speedy payment transactions involving mobile phones or credit cards. The breakthrough has been predicted for many years, but as far as Malaysia is concerned, contact-free payment transactions are not yet being used on a wide scale. However, the market is about to be shaken up: Analysts are expecting to see a growth of 1000 percent in 2015. The reason: There are more and more payment services that rely on NFC (such as PayPass and PayWave), and which are supported by the large credit card corporations

MasterCard and Visa.

Furthermore, there's also Apple Pay which also relies on the NFC technology, but it is not yet available in Malaysia. When the time comes to make a payment, the user just need to flash his NFC-equipped mobile phone or credit card at the point-of-sale terminal. Small payments can be made directly, but larger amounts necessitate the entry of a PIN. Many new stores now, with collaboration with VISA, are featuring their NFC-equipped terminals in hyper markets, super markets and departmental stores.

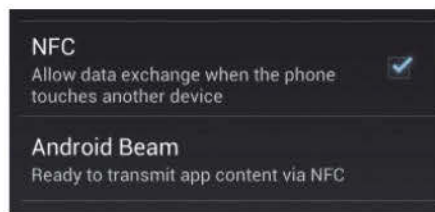
NFC: This is what's important

NFC technology: NFC stands for 'near field communication', and it has been available in the market for about ten years. The wireless standard involves contact-free procedures, and can only transmit data at a very slow rate (max. 424 KBit per second).

Short distances: Compared to Bluetooth and WLAN, NFC is not just slower, but it's also limited to short-range operations. When it comes to an NFC-based payment transaction, the separation between the smartphone and the cash register may not exceed four centimetres.

NFC ≠ NFC: The number of devices featuring built-in NFC chips is increasing all the time. According to the analysts, 545 million smartphones featuring NFC chips are expected to be sold worldwide this year alone. However, many payment services are not compatible with all NFC chips – please refer to the list of supported devices.

NFC limited: Even if it had been technologically feasible, NFC chips cannot always be used for all services. For example, Apple has reserved the iPhone's NFC chip exclusively for Apple Pay.



Make payments quickly

Contacts, notes, videos – NFC makes it possible to exchange data directly between devices. When two Android devices featuring NFC chips are held back-to-back, the data can be sent via 'Android Beam'. On account of the slow transmission operations, only small quantities of data (such as contacts) can be sent directly via NFC. The rest of the data can be sent via Bluetooth, whereby NFC simply connects the devices.

Recharging payment cards

A minor – but useful – function involves the ability to recharge payment cards using the NFC chip in the mobile phone. girogo payment cards can use contact-free operations to settle amounts of up to 20 euros at approximately 10000 acceptance points in Germany. We have yet to see the same system being implemented in Malaysia, but with the rate of technology is progressing, it is just a matter of time.



Accessing information

NFC is also ideally suited for simple information exchange. For example, consider the Museum of London – instead of hanging a lengthy, unattractive and crowd-pulling explanation under each exhibit, the museum owners decided to mount NFC tags next to the exhibits. The tag transfers the respective information to each mobile phone featuring an NFC chip that is in the vicinity of the exhibit.

Connecting Devices

This NFC function is the one that is the most useful in practice. Regardless of whether the situation involves headphones and a stereo system, or a smartphone and a digital camera, NFC makes it possible to establish a connection between devices. Those who have set up a Bluetooth or WLAN connection know while this is a wireless service, going through the menu for settings is still a pain in the back, especially if the device is without a screen. Things are particularly apt to go awry in situations involving Bluetooth connections. For example, a device might not be visible to the destination device, or the profiles might not be compatible with each other. NFC shows you exactly how a Bluetooth connection should ideally come into being. If the two devices (such as headphones and a stereo system) feature built-in NFC chips, all you have to do is switch

on both devices and tap the stereo system lightly with the headphones. The NFC transmission procedure enables you to establish a connection between two devices through their spatial proximity alone. The actual connection is then established through another wireless technique like Bluetooth or WLAN, since NFC does not provide high data rates.




Smartphone instead of a key

When it comes to the SmartHome, NFC has a lot of potential. For example, there's the Elock2 (nfcelock.com) locking cylinder, which has a built-in NFC chip. To close the door, the associated app needs to be installed on your NFC smartphone. Now, all you have to do is hold the mobile phone close to the lock. The procedure for locking the door is just as simple. What's more, you can also send temporary access codes to friends or relatives.

Transmitting WLAN access data

WLAN routers can use NFC to transmit access data. This removes the need to type out long passwords when you want to use a friend's WLAN. Linksys calls the technology 'Simple Tap'. In order to receive the access data, the user taps the NFC mobile phone against a card that is delivered along with the router.

On-the-spot tickets

Entrance cards and tickets represent a large playing field for NFC. The Touch&Travel product of the German Railways organisation elegantly demonstrates the manner in which NFC can be used. All that travellers need to travel by train is an app and a smartphone that has an NFC chip. The highlight is that you no longer have to explicitly book a ticket anywhere. All you have to do is hold the NFC phone up against a designated contact point. The system determines where you are – and the journey can then begin. The app itself serves as a ticket. The whole procedure is then repeated at the destination: Simply hold the mobile phone up against an NFC check point, and the journey is considered to have been completed. The billing procedure is then carried out via a direct debit transaction involving the respective bank account. 



Controlling the Smartphone Automatically

The NFC technology should also please tinkerers. All that's needed is an Android smartphone featuring an NFC chip, and the so-called NFC tags. These are passive NFC chips that are usually as large as a coin. They are usually available in the form of stickers, or as items that are embedded in keychains, and they are quite easy to be programmed. For example, an NFC tag in the bedroom can be set up such that it automatically switches a smartphone over to the flight mode. This happens as soon as the mobile phone is positioned close to the tag. The energy of the active NFC chip in the smartphone is sufficient to read the sticker-tag.

The best part is that you don't really need any specialised programming expertise. An app like the free Trigger app is all you need to equip an NFC tag with the respective procedures. What's more, the whole thing isn't too expensive, either. Tags can be purchased for less than a few ringgits each.



Using as online ID

NFC tags are also used in identification documents, such as the government-issued identification cards that have been issued in Germany since November 2010. One of the practical advantages is that the user can identify himself online. Such a procedure is mandatory for online visits to the authorities, and it could also be used to verify one's age in situations involving video streaming providers. In the past, those who experimented with the online

identification function (eID), needed a computer equipped with a card reader. This is expected to change in the near future. By the time this issue of CHIP is released, it should be possible to use eID with smartphones and tablets – without a card reader. However, the mobile devices must

feature a built-in NFC chip. Malaysia's Identity Card is still the older RFID system for data transfer, but as more countries adopt NFCs in their IDs, we should be heading that way as well.



Key problem

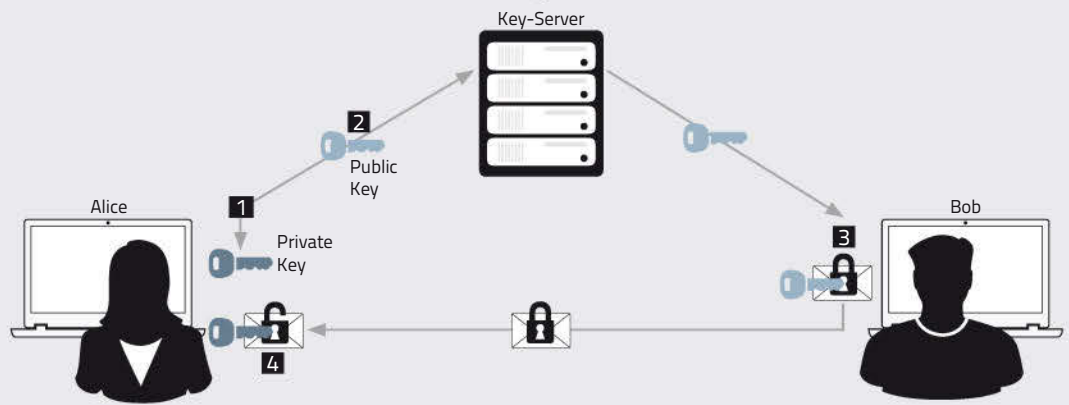
Mail encryption with Pretty Good Privacy is well-established. However, PGP stores the public keys on key servers, which do not guarantee the authenticity of the keys. OPENPGPKEY provides this guarantee via an entry in a DNS server.

Type	bits/keyID	Date	User ID
pub	3072D/27254A33	2014-08-28	Angela Merkel (Mutti) <kanzlerin@deutschland.de> Fingerprint=A4DD EFDA AE64 6BC4 3F67 0B15 D7CA 1367 2725 4A33
pub	2048R/86617B1A	2014-07-17	Angela Merkel (mein sechzigster ist am 18.07.2014) <angela.merkel@bundeskanzlerin.de> Fingerprint=23F2 89CF 3D00 0170 D6AA 2A35 C8E3 2A00 8661 7B1A
pub	2048D/05AF40BD	2014-02-07	Angela Merkel (Official Key-Signing Key) <ame@bundeskanzlerin.de> Fingerprint=1693 CA43 BDB7 9449 E246 B3BC 9D03 0AC5 05AF 40BD
pub	4096R/1C4370EB	2014-01-11	Angela Merkel <merkel@bundeskanzlerin.de> Fingerprint=4F8D B5F4 C9DF F27F 5AAD E638 D2C7 D977 1C43 70EB
pub	2048D/A9CC889D	2013-09-07	Dr. Angela Merkel <merkel@kanzleramt.de> [user attribute packet] Fingerprint=7557 A2AD 1CFC CAA7 7AB0 SABE 2524 34CD A9CC 889D
pub	1024D/DCD6ED11	2010-07-14	Helmut Kohl (Willy Brandt) <Angela.Merkel@Karl.Dall> Fingerprint=2775 49FC F2AF BD24 019F 1FAD 8082 9318 DCD6 ED11

A query for a key server shows that anyone may enter PGP keys there – and pass oneself off as the 'chancellor'

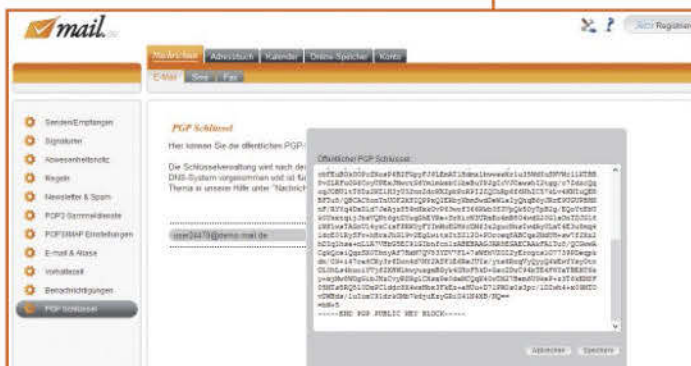
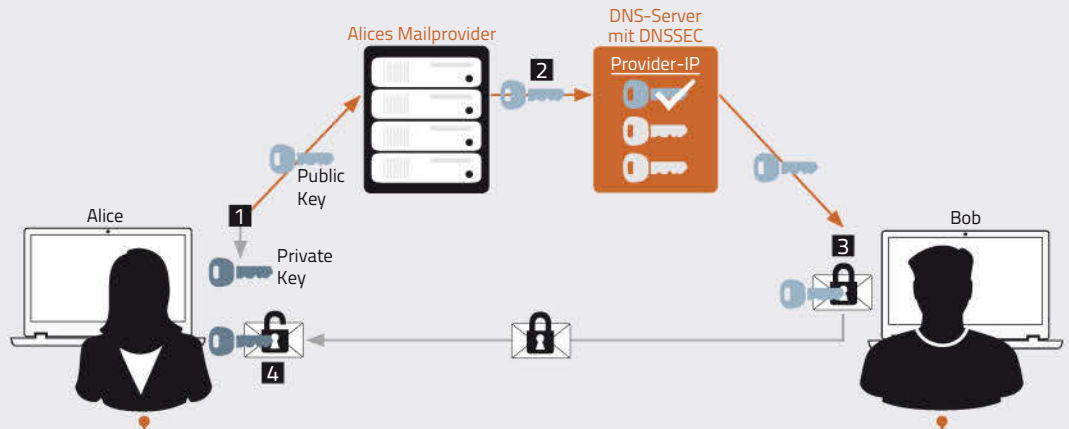
PGP keys without authentication

Before Bob can send an encrypted message to Alice's e-mail address, Alice has to create two keys: The private key for decryption **1** remains with her, while she loads the public key to a public key server **2**. Bob fetches Alice's public key from the server and encrypts his mail **3** to Alice. Alice decrypts Bob's mail with her private key **4**.



PGP keys with authentication

Alice generates the private/public key pair **1**. As described above. She sends the public key to her mail provider, who enters it into a DNS server **2** under his IP address. The authenticity of the entry is guaranteed by DNSSEC. Bob fetches the authenticated key and encrypts the mail **3**. As described above, Alice then decrypts Bob's mail with her private key **4**.



Mail.de is the first provider to offer the ability to store the mail keys using OPENPGPKEY. In order to upload the item to the DNS server, the customer must first send his public key to mail.de.



Using the website openpgpkey.info, the user can obtain the public key (whose authenticity is guaranteed via OPENPGPKEY) for a mail address from a DNS server

Forgery-proof Mail Encryption Keys

PGP can securely encrypt the mail traffic, but it does not check whether the keys are authentic. However, a solution is now on hand with OPENPGPKEY **By Markus Mandau**

After the Edward Snowden affair, we know that a good encryption system is the only thing that can prevent gung-ho intelligence agencies from X-raying the whole internet. Well-established encryption methods are available for websites or instant messaging operations, but the situation becomes tricky when it comes to e-mails. Encrypting the traffic from and to the various providers (such as Gmail) is no big deal, but the messages are often present in the mailbox. The threat of a raid against Snowden's mail-hoster Lavabit has proven that the intelligence agencies are perfectly prepared to access the mailbox itself. There is only one solution - the mail must remain encrypted across the entire length of the route leading from the sender to the recipient. Not even the providers that organise the mail traffic should be able to read it; only the people communicating with each other may possess the key.

Thanks to PGP, a method that works well within a minor framework is already available. First, you generate a key pair using a software application such as Gpg4win. The private key can decrypt mails, and the user keeps it in his possession. The public key encrypts mails, and the user sends it to the recipient. Anyone can now send a mail that has been encrypted by the public key, and only the recipient can read it using his own private key. PGP works well when you use it within your circle of friends and acquaintances - after all, the members of the circle know each other. If you want to receive encrypted mails from external parties, you have to publish your public key. If you so desire, the software uploads the public key to a public key server, along with the respective user ID. For example, such servers are operated by universities, and the public keys stored on the servers are available to everyone. The key server does not know who is hiding behind the mail addresses - If you run a search for Angela Merkel on the key server of MIT (pgp.mit.edu), you will get a dozen hits. One of these keys may even be authentic, but it cannot be distinguished from the 'forgeries'. Anyone can store a PGP key on the server for random mail addresses.

Global extension of the PGP principle


Within the context of a globally available mail-structure with end-to-end encryption, one has to expand PGP to include a supervisory authority. Experts have many different opinions on how it should look. The Fraunhofer Institute is making the case for the use of S/MIME. In this scenario, the public keys are tagged with a certificate, and authenticated by a certification body. This usually works quite well, but it isn't always hitch-free, as certificates can be forged, stolen or misused. What's more promising is authentication within the domain name system (DNS). DNS is basically the telephone book of the internet; it creates an entry containing the respective IP address for the domain name of a website,

such as chip.de. There are thousands of DNS servers in the world that are responsible for providing this service. The DNS entry for a particular domain can be expanded to include three authenticity guarantees (for the IP address, the encryption and the PGP keys). What's essential is the first level, the domain name system security extensions (DNSSEC) - each IP address receives a signature, which the home router can use to check its authenticity (via a DNS resolver) by sending a query to the DNS server. DNSSEC prevents cache poisoning, in which an attacker lures his victim to a phoney IP address. For example, the phoney IP address could tell the victim that he is using the genuine banking website, while his login data is being picked off on a copy.

Mail keys in the domain name system

The second guarantee level is already being used by security-conscious mail providers such as posteo.de or mailbox.org. 'DNS-based Authentication of Named Entities' (DANE) expands the DNSSEC entry to include a certificate that authenticates the SSL keys that the provider uses to transport the mails. DANE secures the mail's route (as shown in the Bob-to-Alice graphic on the left), since Alice's provider can ask the DNS server whether the key really did come from Bob or his mail provider.

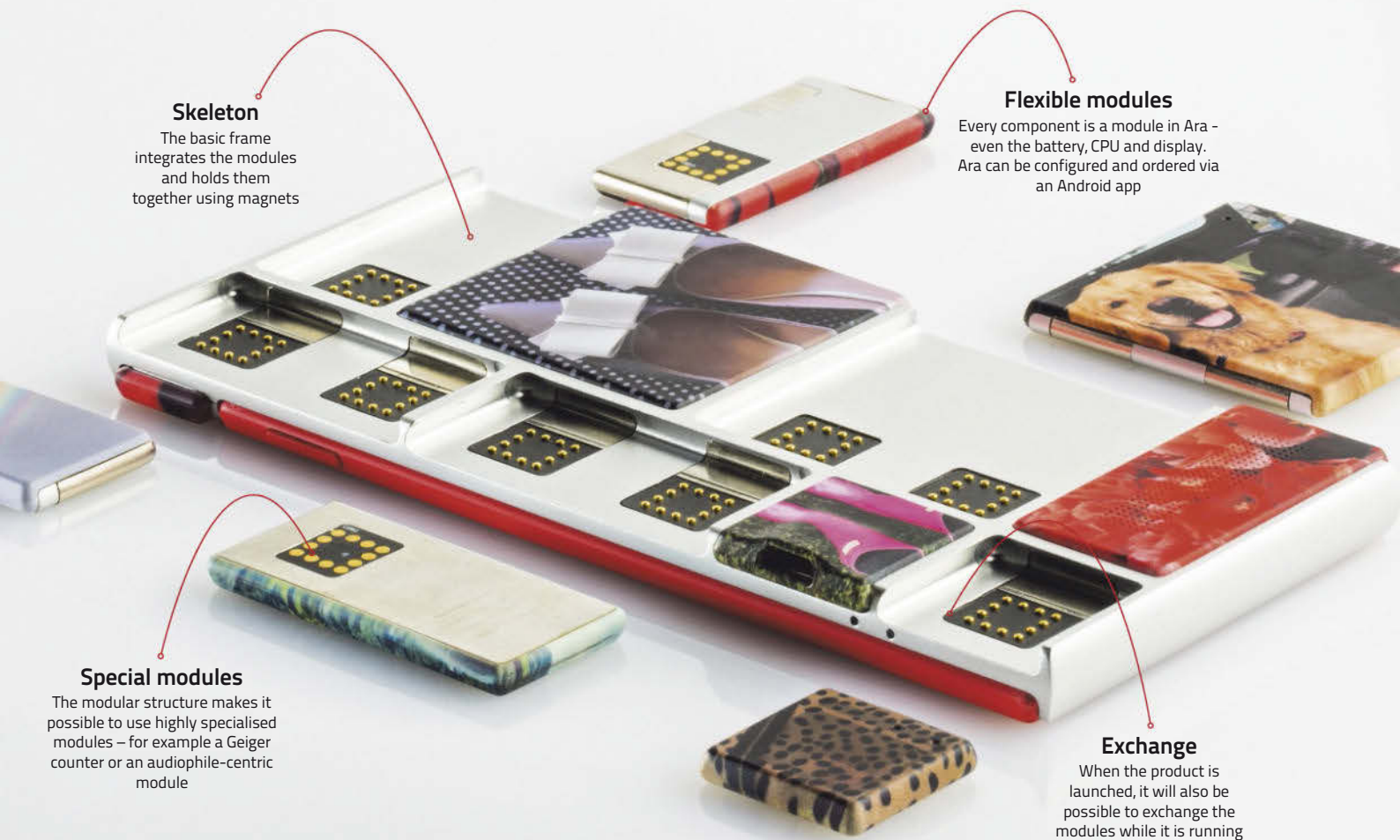
A recommendation that has already reached the Internet Engineering Task Force (IETF) involves the third guarantee level; OPENPGPKEY envisions a scenario in which the mail provider's entries that have been secured via DNSSEC would be expanded to include the public keys that the mail provider's customers have generated for PGP. Instead of insecure key servers, each user can use a mail provider to publish his public keys that have been generated through PGP on a DNS server. There, the link with the provider that has been authenticated through DNSSEC ensures that the situation involves an authentic PGP key which belongs to the specific mail address in question. The IETF plans to use the recommendation to create an official standard by the end of the year.

The provider mail.de is currently the only provider in Germany that offers both DANE and OPENPGPKEY. Its customers can send their keys to mail.de, after which the keys are published via the DNSSEC-capable DNS servers of mail.de. One can use the website <https://openpgpkey.info> to view the public key for a particular e-mail address. Naturally, this only works for the e-mail addresses of providers that support OPENPGPKEY and publish their users' public keys. Michael Kliewe, who set up the system for mail.de, sees the website as simply the first step. 'As soon as the standard is adopted, the public key DNS queries will start being implemented in the respective PGP software on the end devices', he explains. The intelligence agencies are not going to like that at all. 

Google's Modular Smartphone

Anyone can create and customise the Ara according to their tastes using selected modules. Will this idea revolutionise the smartphone market?

By Robert Di Marcoberardino



Do-it-yourself smartphone: how it's done

In just a few steps, you can create your own mobile phone using various Ara modules. You can choose from various hardware components and place them in the individual, clearly defined slots.

Step 1: Select the skeleton



Step 2: Request modules



Step 3: Select the display



Step 4: Assemble



When Google sold the mobile phone manufacturer Motorola to Lenovo at the start of 2014 and made a loss of 10 billion US dollars as a result, it became the butt of many caustic comments in the industry. However in the bargain, the IT giant retained not only thousands of patents but also Motorola's research centre 'Advanced Technology and Projects' (ATAP). This department has been working on an idea for a long time – an idea that can rightly be described as revolutionary, namely, a modular smartphone, code name 'Project Ara'. If Google's plan works, its loss of billions could soon turn into a huge advantage and give Google's competitors – from Apple to Samsung – a terrible headache.

The principle is simple but brilliant. Every buyer would assemble their Ara phone themselves because every component is a replaceable module – display, battery, camera, GPS, loudspeaker, CPU and GPU. Today, the customer can only select from a few configurations. But with Ara, one can assemble their own completely customised smartphone – just like the golden times of PC DIY. According to Google, customers will always have an app with which they can assemble, design and organise their Ara phone. The device will then be like a plug-in kit for the customer. Since the modules can also be purchased individually, the operating life of the smartphone could increase to five to six years. If the battery weakens, it can be replaced by a new battery module. If the quality of the full HD camera is no longer enough, it can be replaced by a 4K module.

Prototype presentation in the backroom

The base body of every Ara phone is the barebones frame ('Endo') made out of aluminium, which will be available in different sizes in the future. The current Ara prototype is slightly bigger than an iPhone 5 and can be equipped with a display on the front and up to twelve modules at the back. With the exception of the display and a slimmer front module, the modules currently come in three different sizes: the smallest has a surface of 20 x 20 mm and can accommodate one USB port. Then there are modules of the sizes 20 x 40 mm (e.g., digicam, WLAN) and 40 x 40 mm (e.g., CPU & mainboard, battery). The base body also contains data and power lines as well as magnets that hold the modules in place. In the current prototype, the device has to be rebooted when changing a module. In future however, a modification in the Android operating system will make it possible to exchange a module even when the phone is in operation. Ara, which was a secret project, has become a public one under the direction of ATAP since the end of 2013. Since then, prototypes are being released and third party developers are being involved in the designing of the module. The ATAP has divided the Ara development phases into so-called 'spirals', where the current prototype is 'spiral

2". If basic designs and communication chips (WLAN) were integrated in the predecessors spiral 0 and 1, the focus is now on the development of a 3G chip for mobile communication and on the involvement of third party developers like NVIDIA or Toshiba. Not so long ago, the Japanese company has introduced the first functional camera module for Ara via a YouTube video. Attaching modules using magnets, which can be switched on and off, and which functions with the help of electropermanent magnet (EPM), has been improved when compared to the first phase.

The next prototype spiral 3 is supposed to be presented as early as in the second quarter – it will have a 4G/LTE module, a more powerful battery and Android on board. The Ara schedule is tight because the first pilot phase is supposed to start in Puerto Rico by the end of the year – before the worldwide launch. According to Google, the small island state has people who are mobile-data-savvy and a provider market, which can be compared to that in the USA. At the Mobile World Congress at the beginning of March, Google had displayed only one prototype in the backroom, which was still quite far from being ready for the market. It remains to be seen whether a testable smartphone can really be conjured by the end of the year.

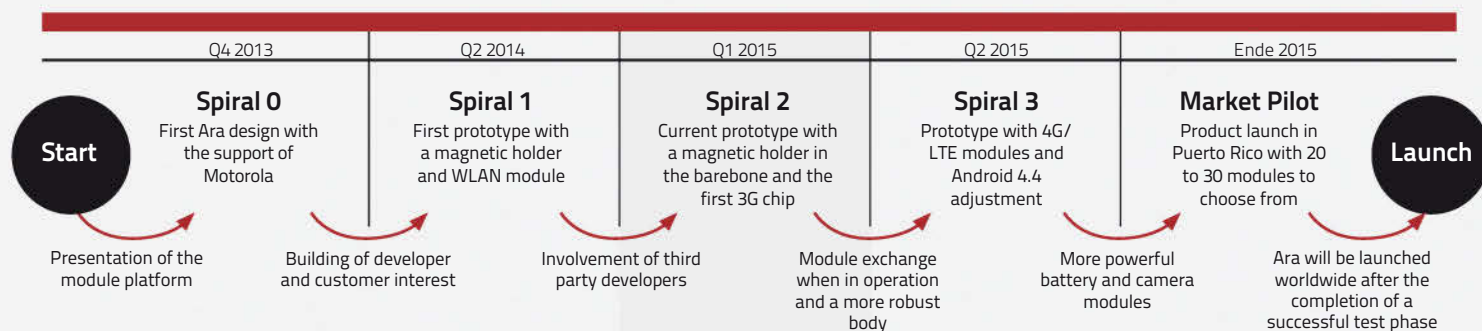
Geiger counters and clinical thermometers

Google explains the deeper logic behind Project Ara with ecological reasons and, with a starting price of 50 to 100 US dollars (~RM188 – RM 565), also aims at developing countries. However, in India or South America for instance, many manufacturers are already providing smartphones that cost less than RM200. The real attraction for Google will be the control and sale of modules. The modules will become to Ara what the app market is for Android; there are a number of start-ups like Intersoft, which has announced a Geiger counter module with a 'Radiation Sensor' for instance. The target group for this could be small but it shows the possibilities Ara can offer – cameras with optical zoom, powerful GPS for mountaineers, clinical thermometers for doctors or high-grade sound modules. Such individual components may not interest big manufacturers, but smaller developers could find people who are interested in Ara and in buying such modules.

We asked Google's Android partners such as Samsung, HTC or LG what they think of Ara. The modular smartphone must be like a warning shot for them and except for Motorola, none of the big manufacturers have officially experimented with Ara yet. As expected, none of these manufacturers wanted to comment on this. However, we can say with reasonable certainty that they will be looking at the mobile data market in Puerto Rico at the end of the year. 🇵🇷

Project Ara: tight timelines

Google has drawn up an ambitious schedule for Ara: there is a period of just two years between the first prototype and the market-ready stage. 20 to 30 modules should be available at the scheduled pilot start at the end of this year.



SOURCE: GOOGLE (ATAP, PROJECT ARA)



Internet Explorer 1

Internet Explorer version 1 was published in 1995. Microsoft licenced the technology of Spyglass, the developers of Mosaic browser. Later, there was a legal dispute regarding licence payments. Microsoft paid eight million US dollars to Spyglass to resolve the problem.



1997

Internet Explorer 4

By integrating with Windows, Microsoft snatched a massive market share from Netscape Communicator

1995 1996 1997 1998

Internet Explorer 11

Sleek, fast, beautiful – and yet doomed

CHIP TIMELINE

Internet Explorer: End of a Legend

Internet Explorer is dead. Microsoft announced the end of the legendary browser in March but the successor Edge is still in its beta phases

It will be the end of an era when Windows 10 arrives middle of the year. Internet Explorer with more than 20 years of navigation through the vastness of the World Wide Web, will soon be no more. The pressure of competition from Firefox and Chrome was too overpowering and hence the decision to cut it loose. Windows 10 will now

instead come with the IE-successor Edge – Project name Spartan. How did it come to this?

The first Internet Explorer came in the market in August 1995 as a result of a licence trade between Microsoft and Spyglass, the makers of the Mosaic web browser. "We sold our technology to 120

companies" said Spyglass developer Eric Sink. "And one of them slaughtered the other 119". After Microsoft was certainly unsuccessful with its browser trials, the software giant took tougher actions in 1996. Several features of the popular Netscape Navigator were stolen for the version 2 of Internet Explorer and in August 1996, IE 3

PHOTOS: REUTERS/STR NEW (U.), MICROSOFT (O.)



2004

Mozilla Firefox

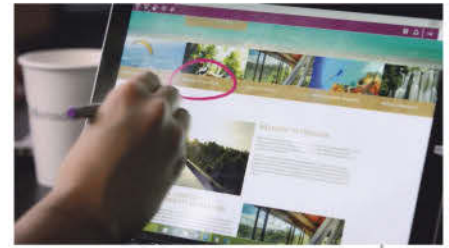
Mozilla Firefox always attracts more users. Add-on support is far superior than that of IE,



2008

Google Chrome

Chrome took the browser market by storm. Snazzy, sleek, comfortable and more customisable than IE,



2015

Microsoft Edge

Edge (formerly: "Spartan") has a new rendering engine and should offer cross-platform compatibility

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015



2006

Internet Explorer 7

IE 7 presents itself as a completely new standard browser of Windows Vista. The focus lies on security.



2011

Internet Explorer 9

Everything goes well for IE 9 with its new UI and implementation of latest web standards. But it is a little too late.

was available for free. IE released versions 4 to 7 between 1997 and 2006, as an integral part of Windows 98 SE, 2000 and XP and garnered 90% share of the market.

This bundling attracted the legendary anti-trust processes against Microsoft. The company finally obliged to let users choose their own browser. The descend of IE was initiated especially when it enjoyed an extremely bad reputation once again - in 2006, Internet Explorer was chosen by PC World magazine as "the least secure software of the planet" among the top 10

worst technical products of all times. In the same year, Microsoft introduced easy operation and increased security with the launch of the IE 7. But Firefox by Mozilla, available since 2004, has attracted more IE users towards it. Things got worse for Internet Explorer as Google came up with its faster and sleeker Chrome browser in 2008. In spite of new features and better performance, even IE 8 (2009) could not change its downward trend.

IE 9 for Windows 7 and Vista made everything right in 2011; the user interface

was streamlined, the technology at par with the competition. But many users had already stopped using IE by then. In 2012, Microsoft published IE 10 exclusively for Windows 8 - however the new operating system did not achieve the expected market share. IE 11, published in 2013 was supposed to be the last incarnation of the legendary browser - sleek, fast, beautiful and yet doomed. Microsoft decided to pull the plug in the spring of 2015. 🚫



5

Making Windows Redundant

Linux has always been fast and stable. Ubuntu 15.04 now proves that the label 'tinker-OS-only' is inaccurate. Check out our easy steps to go Linux By Leo Joscha

Windows is simple, and Unix-related operating systems are complicated as the saying says. The fact that this statement is false, as proven by MacOS, iOS and Android - all of which have roots in the Unix world. Ubuntu brings the simplicity of these systems to the PC desktop.

It can be installed on the computer in just a few minutes: It can also be installed alongside the existing Windows operating system. Alternatively, it can also be run from a USB stick. Apart from the language and the time zone, nothing has to be adjusted during the

installation process, and the question of driver support emerges a lot less frequently than it does in case of Windows 8 or 10 - Except for the latest graphics chips, practically every type of hardware is supported. The website will have links for the ISO files - for 32-bit and 64-bit computers. The latter version is only advisable if your system has more than 4 gigabytes of memory. You can burn the ISOs onto a DVD and use the DVD as either an installation medium or a live system. However, the process is a lot smoother if a USB stick (at least 4GBs) is used. Just follow these steps to see how you can make linux part of your life.

5 Simple Steps

1 Transfer the ISO file onto a USB stick

Load the Linux Live USB Creator and install the programme. When it is launched for the first time, it will point out that a newer version is available for download – so you can go ahead and upgrade it or stick with the current version. In the program interface, select the desired USB stick and the Ubuntu ISO file. Under the 'Persistent Filesystem' section, you can specify how much of the available memory associated with the USB stick is to be reserved for permanently-saved data or programme updates. We recommend using the entire memory, so push the slider all the way to the right. Deselect the 'Allow start-up from Windows' option. Clicking the lightning symbol starts the set-up procedure for the USB stick.

2 Initial boot-up from the USB stick

Now, boot up the computer from the USB stick. Depending on your system, this can be done by pressing the [F12] or [F10] keys during the system boot-up. Alternatively, you have to change the starting sequence in the BIOS set-up and move the USB stick into the first position. Select the desired language in the first dialogue that appears after the start-up phase. The 'Try out Ubuntu' option allows you to get started with the live system. You can experiment with Ubuntu, install programmes etc. without changing your current system. You can now start installing the software of your choice (step 5).

3 Installing the system on the hard drive

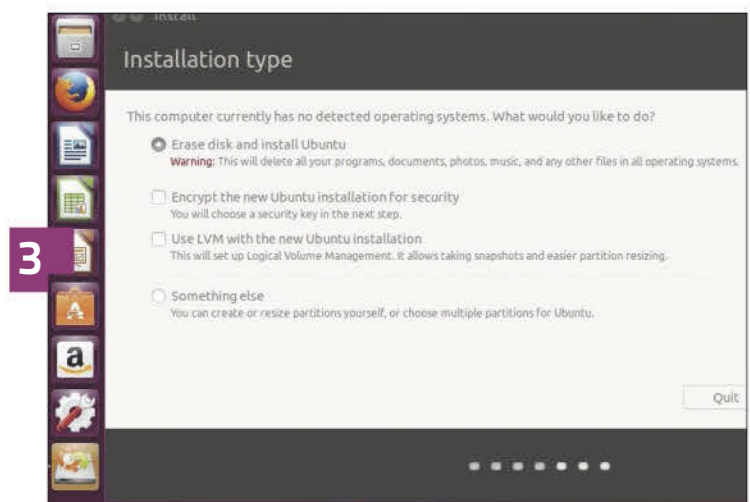
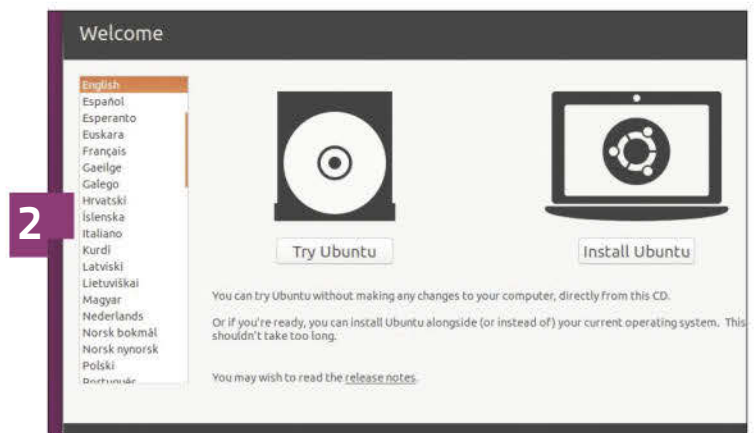
If you have selected 'Install Ubuntu' option during step 2 – or via the desktop symbol in the live stream – you will now have to decide whether you want to 'Clear the hard drive and install Ubuntu' or 'Install Ubuntu alongside Windows'. The 'Other' option allows you to create the partition manually. In most cases, this is not necessary.

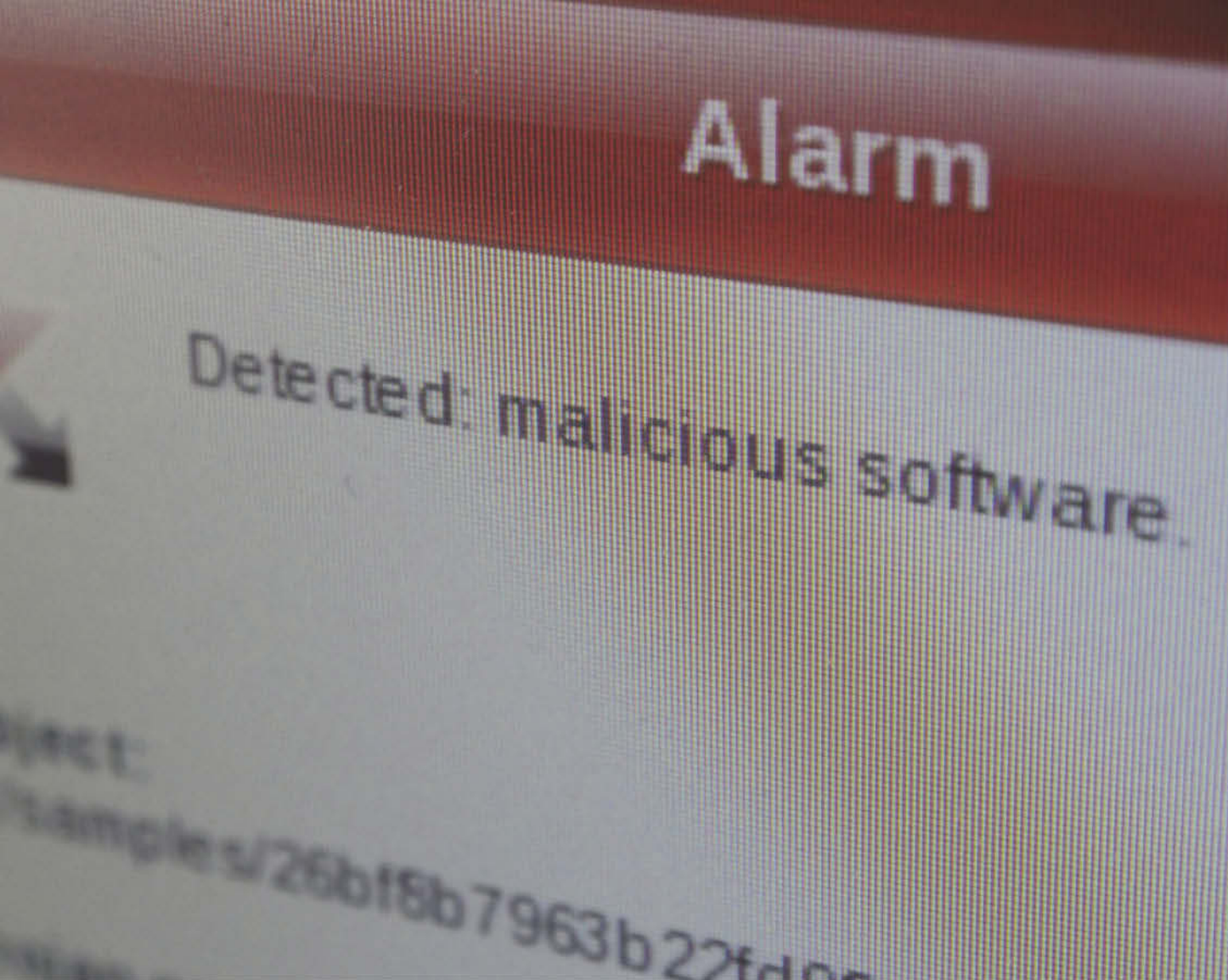
4 Allocate memory

In the next dialogue, specify how much space is to be allocated to the Ubuntu system by using the mouse to move the border between the partitions. Naturally, the size of the Ubuntu partition cannot exceed the amount of space that is available on the Windows hard drive. Seven gigabytes should be enough for a basic installation. In order to ensure that there is enough space for data and the installation of programmes, the partition should be of a minimum size of 20 gigabytes. Now, all you have to do is select a username, a password, a time zone and a keyboard layout.

5 First steps in the world of Linux

The tidy home page (refer to the upper part of the page on the left) simplifies the first excursion into the world of Ubuntu. If your computer is connected to the internet via a WLAN, the corresponding symbol will be present in the system bar. Select your wireless network and enter the network key. On the left-hand side, you will find the symbols for Firefox, the Libre Office programmes (whose range of functions is definitely on a par with MS Office) and the symbols for the Windows partitions – The file browser can be used to exchange data. The 'A' leads to the software centre, which contains a veritable ocean of programmes. Happy browsing! 📺





Virus Alert: What to Do?

Is your computer warning you about a virus, while your browser sounds the alarm about a hacked certificate? We'll show you how to respond to such notifications

By Fabian von Keudell

All of a sudden, a warning window pops up with a cryptic message: "Object c:\3df34wf4.pdf is infected with the Trojan.Win.32.Invader Trojan programme." Right below the message are three options: Quarantine, delete and skip. Even experienced computer users don't always know how to proceed in such a situation. Popular anti-virus programmes make it easy for themselves, and shove the responsibility onto the user. Those who hastily press the wrong button could catch a virus, or even end up permanently deleting a harmless but important file from the hard drive.

The world of e-mails contains similar pitfalls. Any message could contain a virus. But it definitely wouldn't make sense to just go ahead and delete all the notifications. A similar situation exists when it comes to the internet - if a seemingly reputable company site reports a certificate error, it's important that it could always be a false alarm and is recognised as such. In this piece, we will give you info that you need to ensure that you won't need to worry about pressing the wrong button when faced with virus alerts.

PHOTO: JULIANE WEBER

Virus Detection

Win32Blocker.cbuf, HEURtrojan.W32 – when such names come up, only a handful of users can immediately identify the troublesome virus. It is even harder to recognise a false alarm. Modern anti-virus tools have a detection rate of up to 99 percent. However, this comes at a price, namely, several warning messages. We're showing you how you can find out whether danger really is imminent.

Arranging notifications properly

In case of a warning, anti-virus programmes often leave the next step up to the user – they have to decide whether the allegedly infected file should be deleted, quarantined or whether the virus scanner is simply mistaken. In such a case, it's important to know exactly where the file came from. Files from protected environments (such as files from internal company servers) have probably already been checked by the enterprise virus scanner, which means that they are probably clean. You can also assume that files received via e-mail from reputable online sources – such as Amazon & co. – are free of viruses. Naturally, this doesn't apply to situations in which the mail was forged (see the section dealing with junk mail on page 60). False alarms can also arise if multiple virus scanners are installed in tandem. Before you assess the virus alert, you should go through the following steps – first, google the virus name. This often delivers the respective information. Another indicator is the test that can be run on virustotal.com, which allows you to upload the allegedly infected file. The site then uses several anti-virus engines to check the file. If the majority of the engines generate a positive detection, it means that the file does contain a virus, which you should then delete with the help of your anti-virus programme. If the site only produces negative results, it means that the alert is a false alarm. If the deletion function does not work, it means that the file has been blocked by the system. Under such circumstances, you should use your rescue system (see the box on the right), which is based on a live Linux OS.

Computer slows down noticeably

If you're beginning to feel like your computer is running very slowly, you may have fallen victim to a rootkit virus. For example, one indication is the idle performance of your system and the internet connection. You can check via task manager – when you are not using the computer, the CPU utilisation ratio should amount to less than five percent, while the network utilisation ratio should be less than one percent. If one of these values consistently remains at a very high level, it could indicate the presence of a root virus. In such a case, the best course of action would be to once again use the rescue system. This bootable Linux system can even get rid of dogged viruses – the scanners installed in the system often cannot do that.

Computer is locked

Some criminals can install ransomware virus on your computer. It locks the whole system, while only displaying a single message on the screen and even encrypts parts of the hard drive. Those who send a sum of money to the virus developers receive the activation password – at least, that's how the story goes. First, you should run an internet search for information from the screen, such as the terms 'MoneyPak' and 'Ransomware'. The websites of most virus protection companies provide special removal tools and activation passwords for the viruses. In most cases, our rescue kit (available on the website) can be of assistance. All the programmes should be up-to-date, in order to ensure that the gateways are closed. This can be accomplished with the help of the CHIP-Updater.

This is how you can detect and delete malware

First, you should get suspicious files checked by an independent entity, such as the VirusTotal website, which gives indications of a potential false alarm. In case of ransomware, google the terms found on the lock screen – Activation codes can often be found on the internet.



The website virustotal.com uses several engines to check files and websites for viruses. Then you can decide whether you want to trust the virus alert



So-called 'ransomware' locks the entire computer and encrypts sections of the hard drive. The criminals only send an activation code if a ransom is paid

On the Website: The important rescue kit

With the rescue kit, you can even get rid of viruses that are embedded deep within the system. The system can be installed on a bootable USB stick or a CD. The signatures of the virus scanners can be kept up to date via the integrated web-update facility.



Junk Mail

An e-mail from your bank arrives – your credit card has been blocked. You are now expected to verify your details on the company's website, so that the card will be unfrozen. The return address looks like a Visa address, and there's even a personal salutation. Sometimes, it can even be hard for experienced users to determine whether the message is valid or a phishing mail. Here, we will be showing you which details you should pay attention to, so that you won't be a victim.

Recognising phishing mails

The sender's address isn't the only thing that can help you identify a fraudulent mail. The sender's address can easily be manipulated by the attackers. An indication of the authenticity of the address is provided by the e-mail server through which the message was sent. This information can be found in the message's source text. In Outlook, the source text can be called up via 'File | Properties'. In Gmail, open the mail, click the arrow next to the reply button and select 'Display original'. In the source text, the sender-server is identified under 'Received'. It should have the same domain name as the company that sent the mail. If this is not the case, the message is highly likely to be a phishing mail, and you should just delete it. However, this method doesn't always work. Small companies in particular rely on the mail servers of external service providers – In such a case, the domain name would not be in line with the company address. However, since the attackers usually only imitate large websites, the server-check method is a valid tool.

Still, under special circumstances, the cyber-gangsters will deliberately refrain from using a large company as a disguise. In order to place viruses on computers via e-mail, they disguise mails as messages sent by a collection agency. The hackers thus sidestep the mail server test described above, as they simply adapt the name of the collection agency to the mail server address that was used. In such a case, the mail contains an attachment that accompanies the debt claim. This file often has a virus. Some of the cover letters even contain a personal salutation. Don't let yourself be fooled – the data often comes from commercially available address databases, while the information contained therein comes from lotteries.

Mails from friends

People are often mistakenly advised to trust messages coming from people they know. This is dangerous, because your acquaintances may themselves have fallen victim to a virus attack. There are two different scenarios – you may receive an e-mail that came from an acquaintance, but the contents of the e-mail may be riddled with advertisements. Alternatively, the message may contain suspicious text that asks you to click a link contained in the e-mail. You should never trust such an e-mail. Under such circumstances, you can often check the authenticity of the e-mail by checking the mail server. The mail domain – such as Google Mail – must be in line with the name of the sending server. However, an e-mail sent by an acquaintance may also land in the spam folder – even if it is a genuine mail that is free of viruses. Such a scenario simply means that the spam filter has not been sorted correctly. Certain chunks of text are often incorrectly designated as spam. If you want to play it safe, you should simply give the acquaintance in question a call. If he really has a virus on his PC that is sending e-mails on its own, he will be grateful to you for pointing it out.

This is how a phishing mail works

Cyber-gangsters will try to use fraudulent e-mails to access your data. The attackers use genuine-looking letterheads, authentic return addresses, and even personal salutations.



1 In the first step, the recipient receives a mail containing a personal salutation from a well-known company



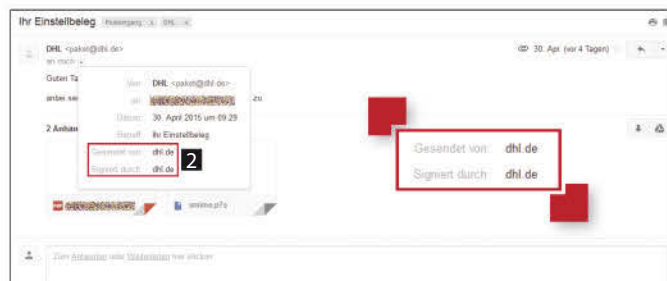
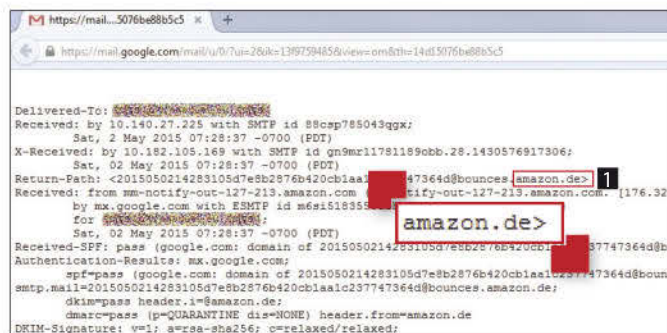
2 If the user clicks the link in the mail, a website appears and asks the user to enter his personal data



3 The sender also asks for credit card numbers. The data that is entered goes directly to the hackers

Characteristics of a legitimate e-mail

The properties of an e-mail identify the sender's mail server 1, whose name should correspond with the sender. An optimal scenario would also involve a signature 2, which is checked by the latest mail programmes.



Web Frustration

Sometimes, an inordinately larger number of advertisements appear on legitimate sites and the browser throws up a warning for a fake certificate. Here are some tips for you when such a situation indicates an error on the part of the website, and when it means that real web-based danger is on the horizon.


Adware plug-ins

Are you being faced with an excessive number of advertising pop-ups in the middle of a browsing session? This might be due to an adware plug-in or virus-related add-ons. Such a software add-on nestles deeply in the browser, and can only be removed by going through several steps. First, you should install and execute the AdwCleaner programme. The tool will then remove undesired adware and toolbars from your computer. In the next step, you will have to do a few things manually: Access your browser's add-on menu. In case of Firefox, you will be able to find it under 'Extras | Add-ons | Add-ons'. The menu will show you all the installed tools. Deactivate all the tools that cannot be classed under the heading of 'legitimate'. Do the same thing in the 'Plug-ins' section. If a certain website stops working properly in the next few days, the site will automatically ask about the deactivated programme. Apart from this, you should always ensure that your plug-ins are up to date. Useful tip - in case of Firefox, the browser can, if desired, run a search for updates by itself. To make this happen, click the 'Check whether your plug-ins are up to date' option in the plug-in window.

Checking certificate errors

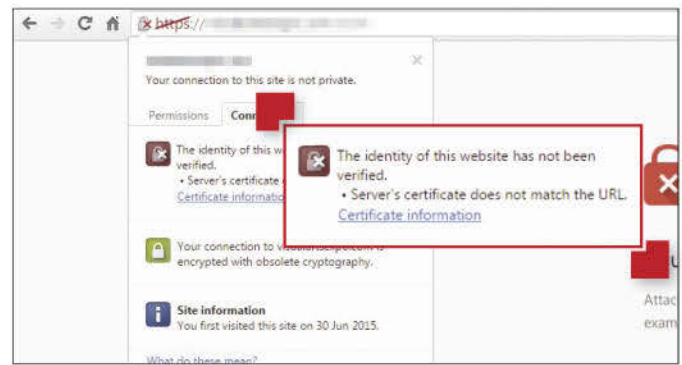
If a certificate error appears when a website is being opened, it doesn't necessarily have to mean that the site is phoney. In most cases, the site is just running an old certificate. To check whether this is really the case, click on 'Details' when a warning is thrown up. Most browsers will describe the problem in greater detail. If the signature is merely outdated, you can go ahead and use the site. Another error involves an incorrect server name. For example, if the company has moved parts of the website onto an external server, the name will no longer correspond to the certificate. This results in a certificate error. However, such a warning can also be indicative of a phoney certificate. If it is, you should just stop accessing the site. Nevertheless, your computer may be in danger even if there is no error, because hackers may sometimes obtain so-called root certificates, which can be used to create valid certificates for websites such as Google or Microsoft. Yet, such phoney root-CAs are quite rare, and are blocked very quickly. In Windows, the records for the blocked certificates is kept up-to-date via a Windows update. Some browsers use an independent database. Consequently, it's enormously important that Windows and the browser be supplied with regular updates. Apart from that, old browser versions can also result in a certificate error.

Detecting password attacks

The next time you log into an online account and receive a notification that says that unusual account activities were detected or a fraudulent log-in attempt was made, you should use a secure browser like BitBox for sensitive log-ins. Such a browser is launched in a Linux environment that is protected against viruses, and this rules out hack attacks against your computer. 

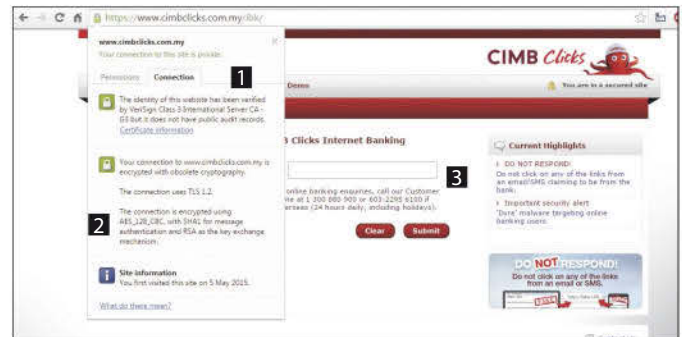
Recognising insecure websites

In case of a certificate error, you should take a look at the error details. For example, if the certificate has been issued for another server, you should not access the site in question.



This is how to recognise a legitimate website

A valid certificate **1** and an encryption system **2** are two features that indicate security. Furthermore, the respective legal information **3** should be available – at least for German websites.



Plug-ins and add-ons are targets

Outdated plug-ins and add-ons are gateways for hackers. Ensure that the tools are always up-to-date. Useful: Firefox features an integrated update-check facility.



This is how you can surf securely on all systems



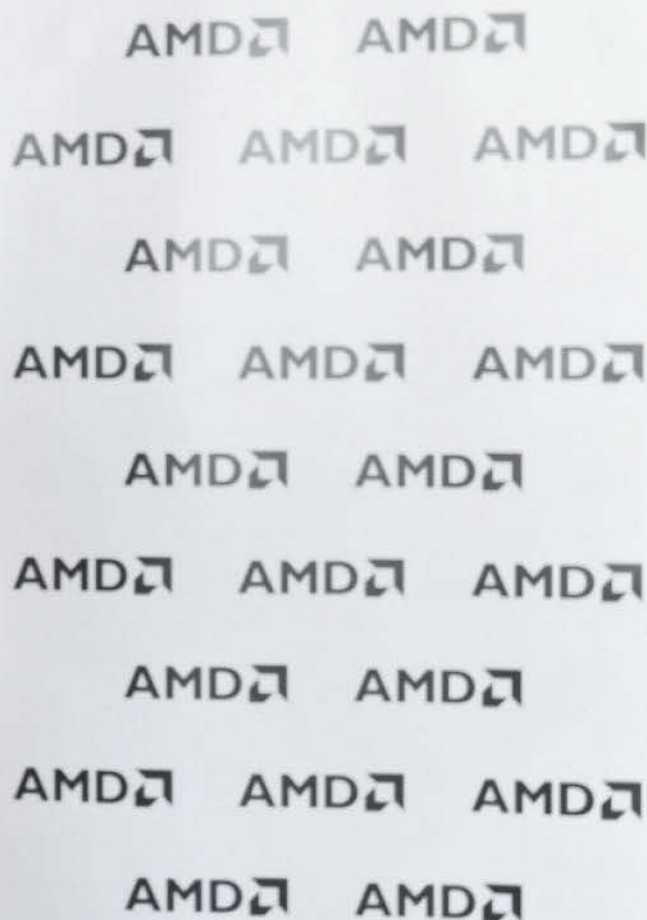
For Windows, you should use BitBox. The programme uses a specially-secured Debian Linux to create a surfing environment.



In iOS, you should use the installed Safari browser. Other apps could theoretically contain a backdoor that can tap off data.



Android users should install the Firefox browser – especially if they are using older devices. Main reason - Firefox uses its own web engine, and is therefore more secure.



A Furious Chat with AMD

With the title of Chief Gaming Scientist, Richard Huddy is definitely the right person to talk about what is AMD doing with their new line of graphics card called . Powered by the latest Fiji GPU, Fury aims to be the next chapter for gamer's gaming needs. We sat down with Richard for a chat at the recent Malaysian AMD launch of the Fury series.

By Sharil Abdul Rahman

How was your impression of E3 this year?

For us, it was a great location to launch a set of gaming graphic cards – the R7 and R9. These new range looks to be the right kind of level and place to launch, especially at E3. We received a tremendous amount of interest over the two new cards. At the end, I was amazed to see the number of people who came up to me and want to either hold up the Fiji chip or expressing enthusiasm over the concept PC, the one that features the two Fiji GPU. It is truly a gorgeous engineering marvel – to build a compact PC with a 25 centimetres by 25 centimetres foot print which features a super-fast, dual-chip Fiji setup. Paired with a fast CPU, it becomes one of the fastest gaming CPU on the market, without taking up too much space. Really small.

Can you give us in ten words or less why the R9 Fury trumps everybody else?

A bit hard, but let me try:

Fantastic technology, superb performance in 4K gaming.

It is also impressive in other gaming resolution but it is designed to be great for 4K gaming at the get go. I think the 4K gaming performance is impressive.

Was 4K Gaming a factor when the R9 Fury was designed?

It was a big part of it. We know that the kind of technology we are building around the R7 and the R9 series – the GDDR5 series – it is

perfectly fine for 1080p gaming resolution, but when you get up to the extremely high resolution, where you get extremely large texture memory sizes, and need a tremendous amount of frame buffer – you clearly need something that delivers much more bandwidth. HBM (High Bandwidth Memory) is the killer way of addressing that. There is just so many ways that we can do with the current GDDR5 – perhaps overclock it a bit faster, but then it becomes more power hungry.

HBM is a new technology that AMD is pioneering with the Fiji based products. What makes it a better choice for GPU implementation than the traditional solutions we have before?

HBM is an industry standard, developed within a consortium with other folks. The really cool thing about HBM is that it will be the choice for future memory solutions. Regardless of the device – PC, smartphone, tablet – any silicon that needs access to memory, and need it fast while sipping power, HBM will be a great solution. Graphics card tend to use a lot of bandwidth, but I can see we move our product range – from the lower ends all the way to the APUs – all over to HBM at some point in the future. It is the future of memory and it will be rolled out to every product line, not just high-end graphics card like it is now. After seven years of investment and building up the technology we will see HBM be the next revolution for on-die memory technology.

We will definitely see HBM be implemented in power-constrained device, as well as our solutions for gamers soon.

What is the performance like of the Fiji chip when compared to the R9 390 without HBM?

You need to benchmark yourself, but we are seeing up to 50% more



performance when compared to non-HBM graphic chips. You can also potentially get up to a performance increase of up to a factor of two per watt.

The Fury X is a departure from the company's branding exercises previously, with AMD opting for a number based label for your previous flagships. What triggered the change and why Fury?

Fury has been in the ATI branding before, and we feel that it is time for the branding to be resurrected and attached to something significant, such as the Fury X and Fury Nano. We also wanted to differentiate the product with the current line up enough that it stands by its own. We want to also make sure that people will know there is no association between the current 390 series and the Fury series.

What is the line-up for the Fury brand?

There will be four which you will see by the end of the year. There is the Fury X, which is already available – a water-cooled card that draws typically around 275 watts at peak. The Fury meanwhile is a lower clocked and air-cooled solution, and is coming to market in July. Fury Nano meanwhile will be gracing the store shelves sometime in September – a design that will be attractive for those who wants a high performance and great experience card in a compact design. The last card will be the dual Fiji card. It will be easily by today's standard the fastest graphics card in the world – with two Fiji cores on board with a roughly 16 teraflops of computing power. It will come to market by the end of the year.

Is Direct X 12 and Vulkan an impetus for the GPU industry to change the way they work?

Absolutely. The two technologies are crucially important to the entire range that we just announced. It is a really big deal as Direct X 12 will be the bigger deal between the two as in PC gaming its clearly going to be the preferred gaming API of choice. We will also support Vulkan in the future. Our work with Mantle places us very well in taking advantage with these APIs.

What is AMD's take on VR, and will the new (and old) line ups be VR ready?

Our focus card will be the R9 series and above. If you are thinking about VR, you will be thinking for something with high performance graphics capabilities. The 380 just borders the minimum requirements, but for us it is bet to start with the R9 390. Fiji will definitely be the best option for VR. We have done a few things around VR, and in March this year at GDC we introduced our LiquidVR API which is about delivering smooth and fast experience for both users and developers. We allow any 3D headset to be plugged in and it will just work. In a nutshell Fiji has been design with VR in mind.



Visual and Performance Chat with ASUS

By Sharil Abdul Rahman

In Bangkok, we sat down with Ken Liu, Chief Engineer from the graphics card division from ASUS to talk about the new line of graphics cards that is set to land in our shores soon



Why suddenly the emergence of the STRIX brand?

Actually STRIX is for our mainstream line, and we have another focus line for gaming, under the ROG sub brand. We don't put in many extra features in our STRIX line when compared to our ROG line – features such as the dual-cooling system in Poseidon is not available with STRIX for example. The brand will be the brand that we will promote for our mainstream gaming customers.

ROG has always been position on a much premium level, and STRIX is designed to complement the ROG line in the market.

Will STRIX replace the current line of GPU?

Yes, STRIX and ROG will be replacing our current line-up of GPU to simplify things for the consumers.

Can you confirm with us what is your current product line-up?

For now, we will have the following as our GPU models line-up – ROG, STRIX, Turbo and

Mini, with Turbo and Mini available for selected GPU models.

Will we see any new Ares or Mars dual GPU graphics card anytime soon, utilising the latest GPU chips from the two companies?

For now, we don't have any plans for an AMD-powered Ares card as the power consumption for the new AMD chip still needs to be investigated further, but we may proceed with an NVIDIA-powered Mars in the near future. It is a challenging proposition however, thus this is under evaluation.

Why is there a difference colour scheme between the STRIX accessories and the STRIX graphics cards?

We found that consumers love to colour-match their products, thus we created the STRIX graphics card to match up with our motherboard colour scheme.



We also met up with Ryder Wang and Jonathan Chu from the TUF/Signature and ROG motherboards divisions respectively, and we talked on where the motherboard brands for ASUS is heading to with the upcoming 100 Series chipset



Ryder Wang, Product Manager, Motherboard Division

How easy was it to work with the Skylake platform when compared with the previous generations?

The main issue that we faced was with the BCLOCK (Base clock). At this stage, Intel has locked down their K CPU (unlocked CPU) – so even if you have a non-K CPU on the Z series motherboard, the BCLOCK will still be in lock, because Intel has implemented a BCLOCK governor in the system. In the case of K series CPU, we are helped by the PROCLOCK technology, where it supplements the BCLOCK to get more CPU cycles out of the chip.

On the other hand, we found that the biggest barrier that we encounter is the

signal trace, as we approach higher and higher frequency speed on board, there bound to be more interference encountered when building the motherboards.

The structure is different than the previous platform, and more I/O options are given, so in the end we have to pick and choose features, which is also another challenge in designing the motherboard. We have to make assumption on features to be on the board, as we have to anticipate what the user needs in the future.

Did Broadwell's late entry into the market effected your product rollout?

Not really, because Broadwell mostly tend to be designed as mobile CPUs, so its impact to the desktop motherboard segment is actually quite minimal.

Is it harder to reach the overclocking sweet spot with Skylake?

It is easier as the temperature management is better, thus we do not need to worry about temperature overruns while overclocking – even for simple one-click overclocking.

Will we see any performance degradation if we share M.2 products with a GPU on the same PCIe lane?

Of course, as they will share the bandwidth. What we recommend is that customers choose which lanes and slots to be used with each component. This is so that 100% of the bandwidth can be dedicated to the device that lives on that lane.

Will all 100 Series motherboard feature the new connectivity options i.e. USB 3.1?

For now, we are focusing on our high-end models with the latest features, as this segment of the market will require and demand the

latest and greatest in all features. For the lower end models, they don't necessarily immediately a change in connectivity, as they tend to have a slower adoption rate. Rest assured however, as we will try to meet the needs of all the market, regardless of level.

Why the need for USB 3.1 Boost in the ASUS motherboards? Why not a simple one-click solution to get 100% of the rated speed?

We have found out that some segments of the market that prefer to tinker everything, and prefer us to set everything on stock settings. We understand the needs of these segment of users. We also understand that some segment meanwhile wants everything to work out of the box. We can have everything set it out of the box, but in the end we feel that it is better to leave it up to the users for new features as it is not a standardised feature at this point of time.

This is compounded with the fact that USB 3.1 products may not follow the required standard, and may not be designed to work with our connectors 100% from the get go. Hence, we let the users set the pace themselves.

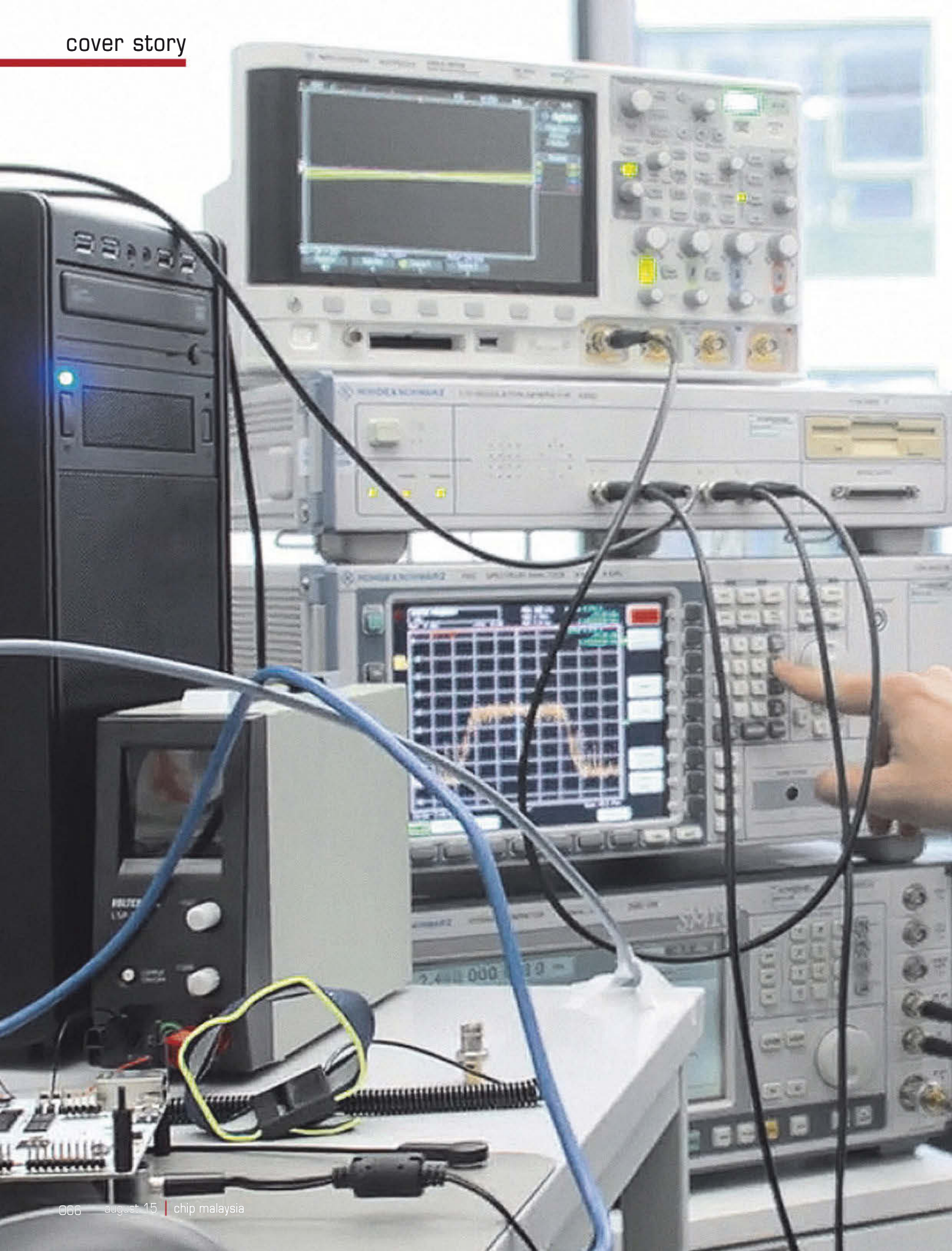
Will we see the motherboards use the Auto-Extreme architecture?

We are evaluating, but motherboards are inherently more complex in design, with more components to be considered. We will continue evaluating it, but it is not feasible at this point of time. 🇹🇼



Jonathan Chu from the ROG Motherboard division





Data Networks of the Future

By 2020, the ultra fast 5G wireless network will not only connect smartphones but any electronic device to each other. However, this is possible only once a couple of problems are resolved By Markus Mandau

Predictions are nothing but bets on the future, which can be harmful in the fast-moving IT industry. This is because if they don't prove to be true, big revolutions can destroy big companies as well – see what happened to Nokia or Motorola. A branch of the industry is now betting on a revolution and that will actually affect the entire modern civilisation – the wireless sector wants to construct the ultimate radio network starting from 2020. The 5G technology,

which is ultrafast and available everywhere, will change our perception of networking altogether. Not just only every smartphone but every car, electronic device and sensor worn on the body will be interconnected. This plan requires massive extension of the wireless network and an upgrade of the fibre technology in the core network so that it can manage the increasing flow of data. The following pages show you how the IT industry plans to win its bet on the 5G future.

One Wireless Network for All

Billions of people and machines will communicate with Gigabit speed in the upcoming 5G network. The technology is expected to be available in 2020

By 2020, the wireless sector wants to develop this concept called 5G, which will connect not only smartphones, but all devices with a chip via radio network. Today, we transmit mobile data via LTE. This may seem modern to us but the 4G network is only one small step into the future. In case of 2G (GSM) and 3G (UMTS), the telephone and data networks were separate. Starting this year, the data exchange in the 4G network, including phone calls, is based on IP packets – Voice over LTE is the technology. LTE uses only one single network – the Internet. 5G expands this concept to all networked devices.

Industry leaders such as Cisco forecasts a tenfold increase in the data traffic on mobile networks in the next five years (see right). This prediction is not based only on the increasing number of smartphones. The growth is largely due to the fact that chips and sensors of different devices communicate with each other via Internet. This ranges from self-driving cars to remote controlled street lights to fitness bands on the wrist. Experts however are not of the same opinion about how many of these 'machines' will communicate via the web in future. The predictions for 2020 start at 50 billion and go on to 150 billion. Not just individuals, but the entire civilisation will be networked gradually.

Road Map for the 5G Network

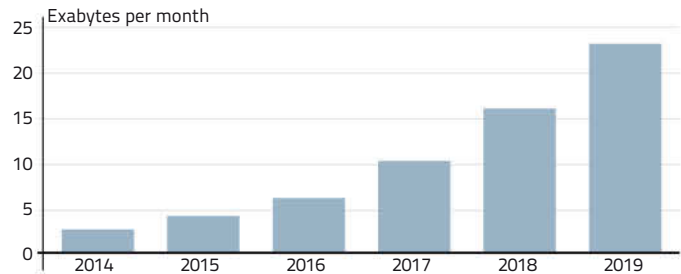
So far, universities and research departments of network equipment companies such as Ericsson, Nokia, Samsung and Huawei have each developed concepts, which can be categorised under the term 5G, separately. With the road map of the NGMN Alliance (Next Generation Mobile Networks) presented at the start of this year, these endeavours have now been standardised. The NGMN Alliance comprises network suppliers as well as mobile communication providers such as Telekom, Telefónica and Vodafone. The plan is to develop a standard for the 5G technology by 2020. The framework has already been set; the transfer rates should be up to 10Gbit/s – with response times starting from one millisecond. From the power users, who watch HD films to sensors that transmit only a few bits in an energy-saving way, 5G has to be able to link hundreds of thousands of participants per square kilometre in a flexible manner. Plus, the devices must be able to communicate using varying wireless technologies. Thus a smartphone for instance should be able to directly change from Bluetooth to WLAN via the mobile network seamlessly.

This is the vision but in reality, there are still quite a few questions unanswered, including a basic one – at what frequencies should the 5G radio transmit data? There is hopeless chaos at the lower end of the frequency band (see right).

Under the abbreviation LTE-U (U stands for unlicensed), Qualcomm,

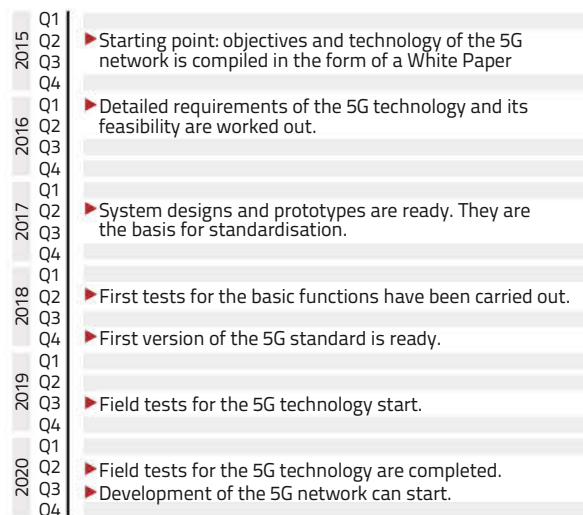
Ten times more data volume

The network equipment supplier Cisco has predicted in its Mobile Forecast Report that there will be ten times more data transfers in wireless networks



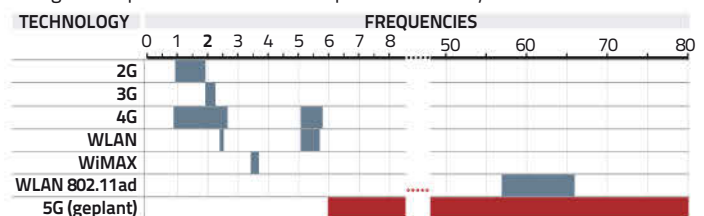
The new wireless network will start in five years

Many big equipment suppliers and providers are part of the Next Generation Mobile Networks Alliance. The Alliance has presented a road map up to the finalisation of the 5G standard. The implementation can start in 2020.



More bandwidth with high frequencies

The 5G network sends data rates in the GBit range. For this purpose, there should be a lot of space on the frequency band. This is only possible in higher frequencies. The lower frequencies are very cluttered.



First prototypes for GBit radio

Equipment providers are already working on the first prototypes. Ericsson, the leading equipment provider, has developed a bulky test device for 5G **1** as well as the appropriate transmitting cells **2**.



the market leader in mobile chips, is planning to use frequencies of about 5GHz for LTE. This band is almost license-free internationally – it is not controlled except for the channels used for military purposes. Market leader Ericsson wants to deliver the first radio cells in 2015, with a caveat that WLAN too transmits at 5GHz. This is the only frequency at which the new ac standard achieves bandwidth that is sufficient for high data rates.

Finally, 5G will switch to frequency ranges of more than 5GHz because only this range offers enough space for the GBit radio. The higher the frequency, the more difficult it is for the signal to reach end devices without disturbance. If LTE transmits data at a frequency of 800 MHz, the transmitter must be a couple of kilometres away. But for frequencies of more than 5 GHz, the maximum distance must not be more than hundred metres. Nokia is also experimenting at frequencies of more than 70GHz. We already have a technology that uses such high frequencies – WiFi 802.11ad. However, it has a limitation of only 10 metres if one wants to transmit data of several GBit/s. This is because ad WLAN transmits data at frequencies of around 60 GHz and does not pass through ceilings or walls. For 5G, this means that transmitting stations must become smaller and be closer to the users. Small cells are already being used for the conventional transmission technology for a long time and can be used to strengthen the signal locally. In size and form, they are quite similar to the device, which Ericsson had used for its 5G demonstration at the Mobile World Congress (see previous page).

Transmitting at High Frequencies

From a technical point of view, high frequencies also have its advantages because the wavelength of signals shrinks as the frequency increases. This also decreases the optimum size of the recipient antennas. As a result, for a transmission at 28 GHz for instance, one requires an antenna that is just half a centimetre long. Unfortunately, the signal at 28 GHz is seldom received disturbance-free. It is deflected, reflected and attenuated to such an extent that one antenna is hardly ever enough for clean reception. The solution for this problem is called Massive MIMO. A normal MIMO (Multiple Input Multiple Output) already optimises the WLAN and LTE reception; but often only two to four signals are sent and received at the same time. High frequencies make it possible to accommodate dozens of small antennas in mobile devices and hundreds of them in a transmitting station for Massive MIMO. The first prototypes from Huawei and from the Lund University (see right) show that the industry still has a lot of work to do in the field of miniaturisation of technology. Other concepts are only just being implemented, for example, directional radio on a group of tiny antennas, which align themselves depending on the angle of incidence of the signal.

The combination of high frequencies and small cells is well suited for the requirements of future services, which are more dependent on reliability and quick response times than high data rates, (see right), for example, autonomous driving on motorways. Here, computer controlled vehicles communicate with each other via a small cell on the roadside. This Device2Device principle is currently being implemented in a new version of the LTE standard. A realtime implementation of high data rates and quicker response times requires tactile Internet, the main focus of the 5G lab at the Dresden University. This involves remote controlling of devices. The bandwidth extends from rescue robots for disaster operations to the remote operating room of the emergency doctor in combination with a pair of virtual reality goggles such as the Oculus Rift.

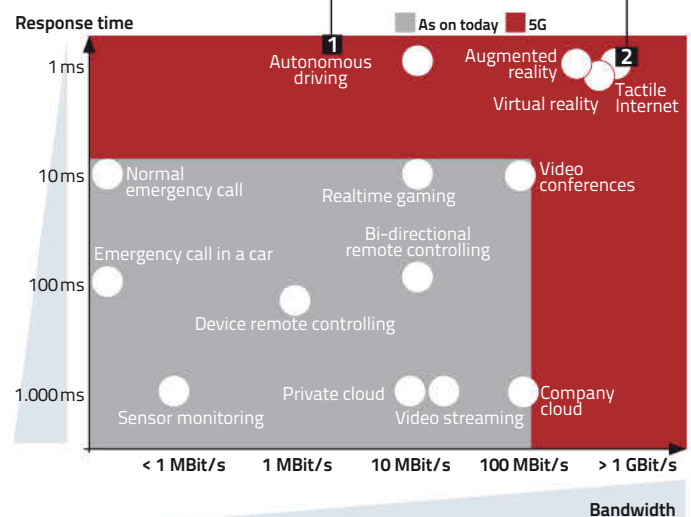
Massive MIMO with 100 antennas

5G transmits at high frequencies. This means a small range. Due to the small wavelengths, the optimum antenna size is also small. This allows the installation of hundreds of antennas in one receiving device to increase the range. The Lund University has developed a prototype.



New realtime applications in the über-network

You can not only hold conversations in a 5G network but self-driving cars on the road **1** can also communicate with each other. Tactile Internet is also possible. Here, one can control devices remotely in realtime **2** like shown here.



The 5G network responds with lightning speed and offers web surfing at glass fibre speeds. This expands the possibilities of network communication enormously – for man or machines.

More Speed for Fibre

5G-wireless cannot go ahead without an upgrade of the core network. Hence the new glass fibre technology helps to increase data throughput tremendously

The new networking that has been planned not only raises questions about the technical feasibility of the wireless network of the future; the performance of the core network is important too. This is applicable to cable connections over large distances as well as for local feeding of the 5G radio network. Cisco has made a forecast about how much more data will be transmitted per fibre glass - the data volume will increase threefold by 2018, and only 40 percent of this will be from PCs and workstations connected via cables. The rest will come from the new participants of the 5G network: smartphones, tablets and networked devices. The 5G dream will fall through if the existing fibre glass network is not expanded. Unlike radio, there is enough bandwidth for high frequency light waves. Currently, fibre glass cables transmit up to 100 GBit/s across large distances in 100 GHz wide frequency channels each, which use wavelengths between 1260 and 1675 nanometres. Since one fibre glass cable can transmit maximum 96 channels simultaneously via Wavelength Division Multiplexing (read more on this on the next page), it reaches an impressive maximum value of 9.6 TeraBit/s (Tb/s).

Breaking The Boundaries of Light Waves

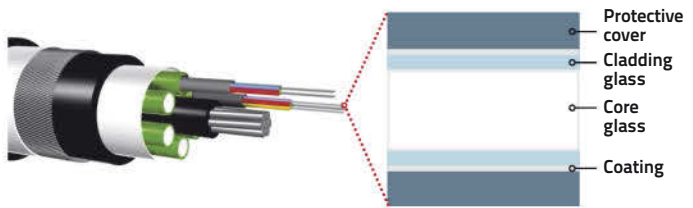
But this is the limit that can be reached and it is not so easy to cross this limit with the current state of technology. The EU Commission is aiming to achieve a transmission rate of 1000 TBit/s by 2020 to be able to meet the future broadband requirements. This goal, which is quite ambitious, overburdens the current technology - especially when it has to span several kilometres. Only single-core fibres (see right) are capable of transmitting a clean signal at such large distances - and these fibres have place only for one light signal, i.e. 9.6 Tb/s. It is true that multi-mode and multi-core fibres, which beams several parallel light signals, are also already in use. But they work only for distances of a few metres; the signals interfere with each other over longer distances. In case of multi-mode fibres, the light waves are fed into different corners so that they reflect differently on the fibre walls and can be distinguished between when they are received by the recipient (see right). Multi-mode cables provide 80 to 100 different modes. For this, the size of the fibre core, which conducts the light, is increased to 50 to 100 micrometres. On the other hand, multi-core cables have several separate fibres, whose diameter of 8 to 10 micrometres is the same as that of single-core cables. The multi-core capacity however cannot be increased arbitrarily - fibre glass cables with a diameter bigger than 0.2 millimetres have been proven to be too fragile. The small diameter and the interference of signals therefore limit the number of fibres in a multi-core connection. Experiments are being carried out with 12 or 19 fibres in one cable but it is primarily multi-core cables that are suitable for larger ranges.

Research and industry are making attempts to further optimise

INFO

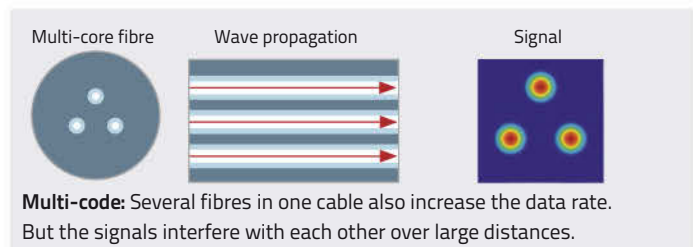
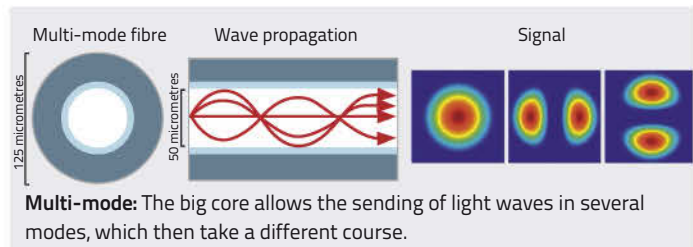
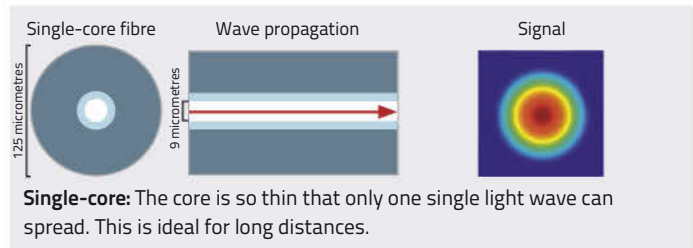
Physical structure of a fibre optic cable

The core glass guides the light. It has a higher refractive index than the cladding glass and hence the light can also be steered into corners almost loss-free. The number of signals, i.e., light waves that can be sent simultaneously depends on the cable type (see below).



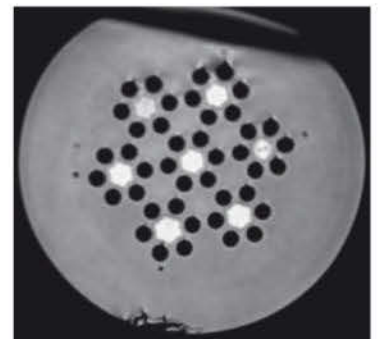
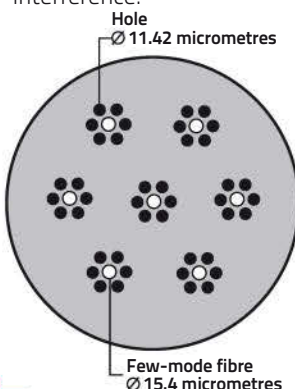
Overview of cable variants

Single-core cables deliver good signal over long distances. Multi-mode and multi-core cables transmit more data but only for a few metres. After that, the signals interfere with each other.



Record cable with multi-mode and multi-core

In 2014, an international team of researchers managed to step up the maximum data rate to 255 Tb/s. To do so, they used a cable with seven fibres. Every few-mode fibre transmitted three modes. Tiny air holes around the fibres guards the signals from interference.



multi-core and multi-mode fibres for longer distances, which will multiply data throughput at one go.

In the summer of 2014, the international study group High-Speed Optical Communications Group established a new speed record of 43 Tb/s with a cable type from the Japanese telecom company NTT. Here, one single laser feeds the signal into a multi-core cable with seven fibres. Some months later, an international team of researchers from the Netherlands and USA announced a tempo leap to 255 Tb/s. They achieved this with the help of a combination of different types of cables. They also used a cable with seven fibres, but each fibre had three modes for transmitting data. Small holes that were drilled around these few-mode fibres guarded the light waves from each other. The combination of few-mode and multi-core cable transmitted 21 signals simultaneously, which were received without any problems at a distance of one kilometre.

Using MIMO Technology in Fibre

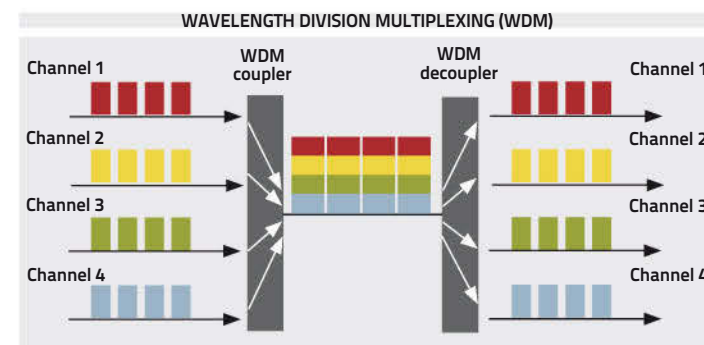
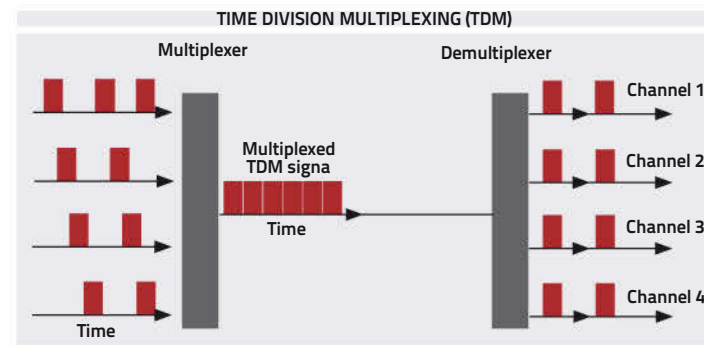
This simultaneous transmission of several signals on the same frequencies via multi-mode and multi-core cables is called Spatial Division Multiplexing (SDM) – it is an equivalent of the MIMO principle that is used in WLAN and for LTE. SDM replaces two older methods: Time and Wavelength Division Multiplexing (TDM and WDM). TDM makes it possible to put slow signals from various sources on a fast fibre glass connection one after the other and distribute signals from a fast line to several slow ones. WDM makes it possible to split the frequency spectrum into several channels (colours) so that data can be transmitted at different frequencies at the same time. A laser feeds its signal for every channel. Every channel transmits at a different wavelength and every laser is responsible for a colour. The signals must maintain a certain distance so that they don't interfere with each other. Usually, their peaks are 100 to 50 GHz apart – for the speed record of 255 Tbit/s, data was transferred on 50 channels, whose signal peaks were 50 GHz apart. A successful fibre glass transmission across several hundred kilometres last year showed that it is possible to accommodate more WDM channels on the same frequency width even across large distances. The network equipment company Alcatel-Lucent and the British Telecom decreased the distances between signal peaks from 50 to 35 GHz during a field test. This would make it possible to step up the record from 255 to 365 Tbit/s.

If the 5G project is to be implemented, it is not enough to merely provide more bandwidth for the core network. It is also necessary to optimise data delivery. Passive optical networks have been used for this distribution until now. A GPON (Gigabit Passive Optical Network) splits the incoming signals via TDM and transmits them to the respective end devices. Since only TDM is used, the individual participant ports often have only a maximum of 10 Gbit/s at their disposal. This speed can be increased significantly with the addition of WDM, i.e. parallel transmission of several colour channels to one port. Depending on the output device, one can also define the frequency range of these channels. Higher frequencies mean higher data rates and less range. In February, Huawei tested such a WDM-PON including its integration into the LTE network. The WDM-PON had 32 channels with 10 Gbit/s each to send data to the end devices. Bundling of several channels multiplies the data rate in one swoop. This data rate reaches the end customer. This is necessary too; otherwise the 5G-radio would be thwarted by the core network itself.



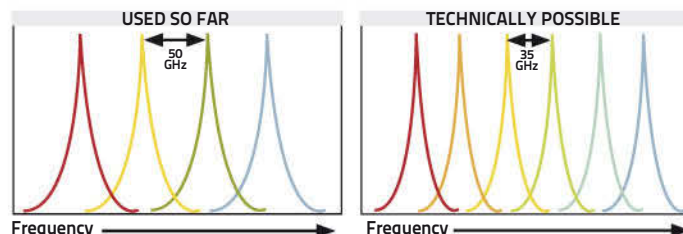
Sending light signals via multiplexing

In case of time multiplexing, several slow signals are put onto a fast signal one after the other. The more effective WDM divides the frequency band into colour channels and can send these simultaneously.



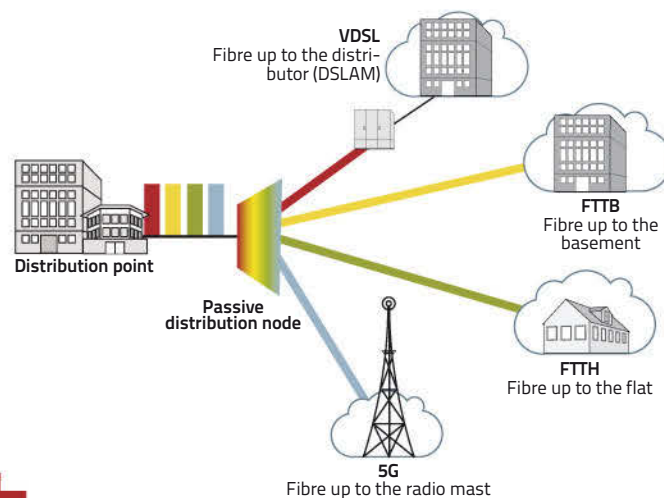
Using narrower frequency channels

WDM channels of a width between 50 and 100 GHz were used so far. In a field test by the British Telecom in 2014, their width was decreased to 35 GHz. This increases the data rate.



The appropriate speed for every port

Passive optical networks (GPON) have distributed data via TDM until now. In future, this will be done by WDM-PONs, which provide frequencies with different data rates for every output scenario.



know the future

COVER STORY

Our main feature of the month which gives an in-depth coverage of today's most exciting technological issues and trends

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Professionally conducted and in-depth in nature, our product write-ups are the only reviews you can trust

CHIP DOWNLOADS

Contains all the useful tools and essential applications everyone will ever need



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Incredibly useful and informative feature articles give you the lowdown on the latest IT and technology trends

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TEST LAB: The Tools

Here at the CHIP Test Labs, we adhere to the high requirements set by the CHIP International Testcenter standards. This means that everything here -- from our own personal knowledge and to our trusted tools of the trade -- are meant to provide the most optimised, unbiased and comprehensive review to every product that comes through our doors. As thus, our test bed tools are specifically picked to get the most out of every test we perform



Intel Platform

Motherboards

Intel DZ77GA-70K
MSI Z87 MPower

Processors

Intel Core i7-3770K
Intel Core i7-4770K

Graphics Processing Unit

MSI GeForce GTX 980
GAMING 4G

CPU Cooler

Master X6



AMD Platform

Motherboards

ASUS Crosshair V
ASUS A88X-Pro

Processors

AMD FX-8150
AMD A8-3850

Graphics Processing Unit

ASUS Radeon R9 290X

CPU Cooler

Cooler Master Hyper 212
EVO



PSU, Storage & RAM

Power Supply

Cooler Master Silent Pro
Hybrid (1300W)

Storage

Western Digital Black² Dual
Drive
Western Digital My Book
Live Duo

Memory

Kingston HyperX
KHX1600C9D3K4/16GX
Kingston HyperX FURY
HX318C10FWK2/8
Kingston HyperX Predator
HX430C15PBK4/16

Benchmark Software

Operating System

Windows 7 Ultimate
(64-bit)

Futuremark

PCMark 8
3DMark

Industry Standard Benchmark Tools

AIDA64
SiSoftware SANDRA
Specy
Unigine Heaven

TEST LAB



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The Technologica Crux

First off, Selamat Hari Raya to all of our Muslim readers!

The month of July is typically quiet after the hustle and bustle of June, with companies slowly launching new products for the second half of the year. This time around however, Intel has decided to break out their new Skylake processor platform, and ASUS were kind enough to showcase its variety of brand new motherboards using the new CPU platform. If you've reached this part of the magazine, you've probably seen them already. Are you guys looking forward to upgrade your PCs to the new platform?

As for our Test Lab segment this month, we get to take a look at some pretty amazing PC monitors. We have the BenQ XR3501, featuring a curved display and FreeSync technology, the ASUS MG279Q, the first FreeSync monitor by ASUS, and the Philips 219 monitor, which has a gigantic curved display and outputs at 4K resolution.

MSI has also been kind enough to send us its MSI 980 Ti Gaming 6G card, featuring brand new coolers, whilst ASUS also sent us the new AMD R9 390 GPU featuring a triple fan cooler which we're fairly sure is necessary to cool off the fiery beast that is the new AMD graphics card. Be sure to read on as we have more stuff for you to see behind these pages!

CHIP Awards



CHIP Editors' Choice Award
Awarded to products that receive unanimous endorsement from all CHIP editors for its overall brilliance



CHIP Outstanding Award
Reserved for products that combine astute technical performance with good quality and design



CHIP Recommended Award
Given to products that possess singular quality worthy of a recommendation

Ratings

Each product review is rated on a scale of 1 to 5 for different key parameters:



PERFORMANCE : Refers to the efficiency of execution

FEATURES : Rates the abilities and unique characteristics available

DESIGN : Varies according to product. Finished products - form factor and build quality. Hardware components - layout, size and cooling solution. Software - user interface

VALUE : Calculated from the performance and features of the product in relation to the price



Staying On The Quick End

The ADATA Premier SP600NS34 M.2 2242 SATA 6Gb/s SSD is made for Ultrabooks and desktop PCs. ADATA's Premier SP600NS34 features multiple functions to enhance efficiency, such as DEVSLP, BCH ECC technology, and Intel Smart Response Technology. It comes in capacities of 128GB and 256GB, and adopts the smallest SSD form factor, M.2 2242. It also has sequential read speeds of up to 550MB/s with maximum 4K random read/write performance of 75K/77K IOPS.

ADATA Premier SP600NS34 M.2 2242 SATA

Contact: Achieva Technology Sdn. Bhd., Alphamatic Sdn.Bhd., Power Cellular Sdn Bhd

Phone: 603-7955 1768, (03) 8061 9836/8060 3836, (03) 7982 8899

Info: www.adata.com

SMB NAS

The Synology DS715 is a scalable NAS server equipped with a quad-core processor, while DS215+ is a dual-core 2-bay NAS server. Designed to provide an all-in-one and compact NAS solution, both servers are equipped with a hardware encryption engine to help SMBs safely store, protect, and share data. It comes with a 1.4 GHz quad-core processor and 2GB RAM, DS715 provides speedy data transmission rates over 216MB/s reading and 142MB/s writing with Link Aggregation. Encrypted data can be read at up to 205 MB/.

Synology DS715+

Contact: Build Technology Supply Sdn Bhd., Eternal Asia(M) Sdn Bhd

Phone: (03) 7955 3699, (03) 5613 5600

Info: www.synology.com



A Keyboard For the Masses

As we continue to add more devices into our modern life, a modern keyboard that functions well with different devices is a must. The Logitech K480 is one such keyboard as it allows you to seamlessly connect up to three devices regardless of platform via Bluetooth. It has a docket that fits all current smartphones and tablets as well as shortcut keys for all Windows, Android and iOS devices for added convenience. It also provides an Easy Switch Dial to switch between three devices.

Logitech K480

Contact: Ingram Micro Sdn Bhd., MCL Sdn Bhd., M-Link Sdn Bhd., Kaia Technologies Sdn Bhd

Phone: (03) 7955 8188, (03) 8023 3800, (03) 7728 9003, (03) 7955 3669

Info: www.logitech.com/en-my



The Blank Slate

Introducing the new Das Keyboard 4C compact mechanical keyboard. The same Das Keyboard quality you demand with a new compact ten keyless design. It has a tactile feel with psycho-acoustic experience and a sleek design for the modern typing experience. It also comes with a unique no inscriptions design meaning, it is made for the hardcore gamers and typists. It is also made durable with gold plated mechanical key switches which can last to 50 million keystrokes.



Das Keyboard

Contact: Tech-a-porter

Phone: 019-2256664

Info: www.daskeyboard.com

A Reliable Server

Do you have a cluster that you want to build but don't know which server fits the purpose. Then take a look at the Dell PowerEdge C6320 which features Intel Xeon processors, integrated Dell Remote Access Controllers with LifeCycle Controller. It has flexible 2.5-inch and 3.5-inch high capacity drive configuration and it also helps you save space by providing the right mix of processor performance, node options and energy efficiency with the optional Integrated SATA DOM 64GB boot device.



Dell PowerEdge C6320

Contact: Dell Asia Pacific Sdn Bhd

Phone: 1 800 88 0301, 1 800 88 2888

Info: www.dell.com.my

Greatness By The Palm

The new LG G4 is a smartphone that is designed for exceptional visual experience. It comes with a 5.5-inch IPS Quantum display with Quad HD 2560x1440 ppi. It runs on the Android 5.1 Lollipop powered by the Qualcomm Snapdragon 808 processor with X10 LTE with 1.8GHz 64 bit Hexa Core. It can store up to 2TB via microSD with 32 GB internal storage and runs on 3GB RAM. Additionally, it also comes with a 16 MP rear camera with f/1.8 and a 8MP front camera with f/2.0.

LG G4

Contact: LG Support Representative

Phone: 1800 82 2822

Info: www.lg.com.my





Pure Freedom

Bringing music on the go is the expression for ultimate freedom in today's world and the Sony MDR-1ABT is the headphone that enables just that. It comes with a powerful 40mm HD driver for authentic sound and an aluminium-coated Liquid Crystal Polymer Diaphragms for amazing clarity. It also features S-Master digital amplifiers and DSEE original studio recording quality. It can be controlled via touch and has a battery life of up to 30 hours for non-stop music on the go.

Sony MDR-1ABT

Contact: Sony (Malaysia) Sdn Bhd

Phone: 1 300 88 1233

Info: www.sony.com.my

A Sound Design

The Sony SRS-X9 is made to provide a precision-based design for the urban audiophile. It comes with seven speakers with a dedicated amplifier on each one to create a frequency range of 45Hz-40kHz. With the Sony DSEE HX technology, this device can upscale compressed files to near high resolution audio quality. This device also allows you to stream songs from multiple device keeping your sound library at hand especially through apps such as Spotify, Deezer and Music Unlimited.



Sony SRS-X9

Contact: Sony (Malaysia) Sdn Bhd

Phone: 1 300 88 1233

Info: www.sony.com.my



Guarding the Underworld

Premium optics provider Gunnar has teamed up with Razer to create a new line of optical masterpieces for gamers and one of its latest lines is the Cerberus which combines the traditional style with modern lines. It is made with ultra-light aluminium magnesium temples and thermoplastic rubber temple tips which merge ergonomics and durability within a single frame.

Razer Gunnar Cerberus

Contact: Ban Leong Sdn Bhd

Phone: (03) 7956 6300

Info: www.razerzone.com

Gaming Highs

Gamers with the need for high specs gaming can now look forward to the ASUS Strix R9 390X gaming card to add on to their gaming arsenal. It comes packed with exclusive ASUS technologies, including DirectCU III with Triple Wing-Blade 0dB Fan Design for maximum air flow with 30% cooler and three times quieter performance. This card features exclusive ASUS AUTO-EXTREME Technology with Super Alloy Power II for premium quality and best reliability. It also has GPU Tweak II with Xsplit Gamecaster, provides intuitive performance tweaking and lets you stream your gameplay instantly.

ASUS Strix R9 390X

Contact: Build Technology Supply Sdn Bhd., ECS Astar Sdn Bhd

Phone: (03) 7955 3699, (03) 6286 8222

Info: www.asus.com/my/



For The Consolidated Gamer

When you want to play the latest game but lack the budget for the best, the ASUS R7 360 gives you the solution you need. It has a 1070MHz engine clock for fast and powerful performance and dual fan design for better airflow and noise performance. It is also built with Auto Extreme Technology with Super Allow Power II for premium grade quality reliability.

ASUS R7 360

Contact: Build Technology Supply Sdn Bhd.,
ECS Astar Sdn Bhd

Phone: (03) 7955 3699, (03) 6286 8222

Info: www.asus.com/my/



Extreme Performance

Xtreme Performance Gear (XPG) is a brand of ADATA Technology offering the highest-performing computer peripheral products, and the XPG SX930 SATA 6Gb/s SSD is specifically for gamers and overclockers. It's equipped with a JMicron controller and Enterprise-grade MLC Plus NAND Flash for excellent performance and durability; therefore, it's not only suitable for gaming, but also ideal for workstation. By supporting ADATA's exclusive pSLC Cache Technology, BCH ECC technology, NCQ, S.M.A.R.T., Windows TRIM Command and DDR3 DRAM Cache Buffer, the XPG SX930 also offers great efficiency and stability!

ADATA XPG SX930

Contact: Achieva Technology Sdn. Bhd., Alphamatic Sdn.Bhd., Power Cellular Sdn Bhd

Phone: (03) 7955 1768, (03) 8061 9836/8060 3836, (03) 7982 8899

Info: www.adata.com





A Tablet Made For Convenience

Samsung has recently revealed its latest 8-inch and 9.7-inch Galaxy Tab S2 models and this time it comes with some nifty new features. Retaining its beautiful Super AMOLED screen whereby it has a reading mode which modifies the screen brightness level for content reading. It runs on an 8-core chip that runs at 1.9GHz and it includes a 3GB RAM with 32GB internal storage expandable via MicroSD. Additionally, it also has a built in fingerprint scanner.

Samsung Galaxy Tab S2

Contact: Samsung Malaysia Electronics Sdn Bhd

Phone: 1 800 88 9999

Info: www.samsung.com.my

A Curvy Essence

This year is a good year for gaming as, Acer releases their new curved monitor, the XR341CK. This monitor has an 34-inch ultra-high QHD 3440x1440 resolution with IPS technology and it has pictures that are amazingly sharp and realistic. It also features FreeSync which allows the GPU to control display refresh rate, reduce mouse latency and enable smooth gameplay. It also has a 4ms response rate and 100 percent sRGB, while providing four USB 3.0 ports with a variety of inputs.

Acer XR341CK

Contact: Acer Sales and Services Sdn.Bhd

Phone: 1 800 88 1288

Info: www.acer.com.my



Beauty Redefined

There is no better way to turn heads than to do it with the Huawei P8 Lite. This smartphone comes a 1280x720 HD display and it is powered by a Hisilicon Kirin 620 CPU 8X 1.2GHz and runs on the latest Android 5.0 Lollipop. It includes 2GB RAM and 16 GB internal memory space expandable via microSD. It has a 13MP rear camera with 5MP front camera for all your photography needs while also being LTE enabled.

Huawei P8 Lite

Contact: Huawei Malaysia Mobile Hotline

Phone: 1 800 22 0086

Info: www.huawei.com/my



Continuous Power

The new Cooler Master B600 V.2 is a completely new circuit layout and is made with new components that make it compliant to EU regulations. The biggest difference for the new B-series is that it now only has a single rail +12V DC out with a max current of 46A. This power supply unit has a silent 120mm HDB fan with intelligent fan-speed control while being fully protected with a built in Over Protection Protection.

Cooler Master B 600 V 2

Contact: Ban Leong Technologies Sdn Bhd., Build Technology Supply Sdn Bhd

Phone: (03) 7956 6300, (03) 7955 3699

Info: www.cooler-master.com



Gaming Fury

Gaming components made simple yet powerful is the theme for MSI AMD Radeon R9 Fury X 4G. It comes with 1050MHz Core clock speed. This graphics card comes with AMD high Bandwidth technology, Eyefinity and HD3D Technology as well as the MSI Afterburner Overclocking Utility. This device also enables Crossfire multi GPU technology as well as support the latest Direct X 12.

MSI AMD Radeon R9 Fury X 4G

Contact: MSI Malaysia Office

Phone: 1 300 22 1386

Info: my.msi.com



A Tempered Fury

The new Strix R9 Fury graphics card with a new Fiji GPU reinforced using a new GPU fortifier, new High Bandwidth Memory technology, new Super Alloy Power II components built using the new ASUS AUTO-EXTREME technology process, cooled by the new DirectCU III air-cooler incorporating the new triple patented Wing-Blade 0dB fan design. It runs on a core clock of 1000MHz and runs on 4GB of High Bandwidth Memory. It also has improved power efficiency from ASUS DIGI+ VRM 12-power phase design.

ASUS Strix R9 Fury

Contact: Build Technology Supply Sdn Bhd., ECS Astar Sdn Bhd

Phone: (03) 7955 3699, (03) 6286 8222

Info: www.asus.com/my/



Honor 4C

Price: RM529

Contact: Huawei Honor Malaysia

Phone: 1 800 22 3366

Info: www.vmall.my

Display: 5.0-inch IPS LCD capacitive touchscreen

Processor: 1.2GHz Octa Core, Hisilicon Kirin 620

Connectivity: GSM/HSPA

Memory: 2GB

Storage: 8GB expandable to 32GB

Operating System: Android OS 4.4.2 KitKat

Camera: 13 MP (primary), 5MP (rear)

Dimensions: 143.3 x 71.9 x 8.8 mm

Weight: 162g

3DMark

Ice Storm: Maxed Out! **Ice Storm Unlimited:** 5,039 points

PCMark for Android: 1,869 points

Antutu: 26,933

Performance:

Features:

Design:

Value:



Stylish Display

Huawei has been busy these past few months, and with the Honor 4C, it shows clearly that they have been busy bringing some style to their devices

Huawei is now a worthy contender in the smartphone category when compared to Samsung and Apple, in terms of flagship designs and quality, but now, they intend to challenge the low and midrange domain of Xiaomi with their latest addition the Honor 4C.

The device comes in a creamy white colour, and has a nice 5-inch body which is comfortable to grip. Its design is complemented with gold edges which brings out the stylish design of the phone. Located at the bottom is a microUSB port for power while the camera is located at the top left side on the back of the device.

This smartphone is jam packed full of features, such as a Dual SIM slot which allows users to enjoy full connectivity without the need of a second device. It also comes with a decently sized on screen keyboard which makes typing a lot easier

and more precise. The phone also offers a high battery capacity which allows for long continuous usage through the day.

Performance-wise, the phone delivers a satisfactory result when tested with out benchmarks such as 3DMark, and PCMark. It is able to run most of the games out on the market today without much delay or lag. Watching movies and videos on this phone is also a delight, as the wide screen estate makes for a better mobile viewing experience. Camera-wise, it delivers crisp and vibrant pictures. The device however comes with a flaw, which is the low internal memory. With applications nowadays, the files are usually going to be within the 500MB to 1GB range and with an internal memory of 8GB, the phone will run out of storage after just a few applications, which prohibits maximum usage. ❌



The 13 megapixel sensor in all its glory



The metal lip around the screen is superb

+ Good performance
 Lasting battery life

- Low internal memory

CHIP CONCLUDES

All in all, the Honor 4C is an affordable smartphone with a good pack of features and performance. While the memory storage can be restrictive, an additional microSD card would solve the problem easily.

MSI Cubi

Price: TBA
Contact: MSI Malaysia Office
Phone: 1 300 22 1386
Info: my.msi.com

Operating System: Windows 8.1
Processor:
Graphics: Intel HD Graphics
Connectivity: 802.11AC + Bluetooth 4.0, Intel Gigabit LAN
Memory: 2GB
Storage: 64GB, with extra 2.5-inch HDD slot
Others: USB 3.0x2, HDMI, DC-in, Kensington Lock
Dimensions: 115x111x35mm*
Weight: 295g

3DMark
Ice Storm: 12,275 points **Cloud Gate:** 2,345 points
PCMark 8
Home: 1,653 points **Creative:** 1,555 points **Work:** 1,725 points

Performance:
Features:
Design:



A Little Powerhouse

Mini PCs are a dime dozen nowadays, as the trend continues to pick up but the MSI Cubi Mini PC, picks things up a notch with an Ultra 4K HD capacity

The trend of small factor computing has bloomed over the years and each year we see many more of these devices popping up on our local IT store shelves. The MSI Cubi Mini PC however comes with a small yet interesting form which is bundle packed with features and functionality.

Straight out from the box is a clandestine white device that has a total of four USB 3.0 ports, a HDMI port and a Mini Display port which allows you to plug in a 4K monitor output which has rarely been seen before in a mini PC. It has a single audio jack and Ethernet LAN cable keeping the connectivity to a positive high. Within the packaging, is also another useful piece of hardware which is the VESA mount which allows you to place this device behind any supported monitors for a clean, tidy look.

One of the main features of this device is its ability to work anywhere, as it is a perfect

fit for different uses, plus it also gives users an added option of adding an extra 2.5-inch HDD for expanded storage. It has an Ultra HD 4K support which allows you to watch the highest quality movies within the confines of the living room. It can also support multiple displays which add to the flexibility of the device. Additionally, the device is amazingly quiet as it is built with an excellent thermal design with a low noise level of 21.7 dB.

During our benchmarks with the device, it has scored highly in the 3DMark CloudGate and IceStorm while PCMark 8 scores are above average. One of the main things that make this device a pleasure to have in the living room is the ease of connectivity as well as its size. However, we feel that the graphic components for the device could be taken up a notch because its integrated graphics unit makes certain tasks such as light gaming a challenge. 🎮



A full complement of ports for your use



Two USB 3.0 ports in the front, with one acting as a charging port

+ VESA Supported Compact
 Has HDMI and Mini DisplayPorts
 Plenty of USB 3.0 ports

- Intel HD 5500 makes certain tasks a challenge

CHIP CONCLUDES

After all is said and done, the MSI Cubi is a low powered, space saving mini PC that deserves the living room or office spot. This device could be the perfect entertainment add-on for the comfort of your home.

HP Pro Slate 12

Price: RM 2,225

Contact: Hewlett-Packard (M) Sdn. Bhd.

Phone: 1 800 22 6998

Info: www.hp.com/my

Display: 12.0 inch IPS display

Processor: 2.3GHz Qualcomm Snapdragon 800

Connectivity: WiFi Memory: 2GB Storage: 32GB

Operating System: Android 5.0 Lollipop

Camera: 8MP rear-facing, 2MP front-facing

Dimensions: 300.3 x 7.99 x 221.95 mm

Weight: 850 g

Performance:

Features:

Design:

Value:



Trying Something Different

By Nazrin Zain

The HP Pro Slate 12 is the perfect device for note-takers and illustrators

It's been a while since we last saw Hewlett-Packard with a tablet device, but here we are with one of their latest products, in the form of the HP Pro Slate 12 tablet, a device meant to make drawing and note-taking an easy-peasy task. Is it portable-friendly? How does it perform? We're about to find out all about that right now.

As its name implies, the HP Pro Slate 12 is a 12 inch slate device, but in actuality it's quite a bit bigger than that thanks to the device's thick bezels at the side of the screen. It's powered by a 2.3GHz Qualcomm Snapdragon 800 processor alongside 2GBs of RAM, with 32GBs of storage on-board. Its 12.0 inch display meanwhile features a resolution of 1,600x1,200 pixels.

One thing's for sure, the HP Pro Slate 12 has a beautiful and very sturdy build quality, thanks to its glass bezel and aluminium borders which also houses the front-facing speakers at the side. Due to its size, it is quite heavy and unwieldy to be used as a handheld media device for long periods of time, so what's it good for then?

The Pro Slate 12 features an accessory that's called the Duet Pen, a digitiser stylus that features built-in ultrasonic microphones

that help you transcribe your writing and drawing from a piece of paper to the tablet device simultaneously. The Duet Pen also features a built-in rechargeable battery, so charging it is quite easy.

As for the performance of the Duet Pen, we find that it transcribes from paper to screen quite accurately and quickly as well, which more than makes up for the frustration that is getting the pen hooked up to the tablet. The digitiser works with apps such as HP Notes and Corel Painter mobile apps, and while the Duet Pen syncs instantly to the Pro Slate 12, getting it to work with the apps requires a bit of tinkering and menu diving, which does get a bit frustrating.

The Pro Slate 12 has a decent battery built-in, and provided us with roughly about nine hours of battery life, which considering the tablet's size and display resolution, is actually quite fantastic. Performance-wise, the Pro Slate 12 works as well as can be expected, and thanks to its Qualcomm Snapdragon 800 processor, it's quite snappy as well, although the 2GB RAM does show when you have one too many apps running concurrently. 🚩



The Duet Pen perfectly transcribes your writings and drawings from paper to screen

+ Duet Pen works like a charm
Battery life

- Difficult to use as a tablet device
Price

CHIP CONCLUDES

The HP Pro Slate 12 is a tablet that is great if you're into taking a lot of notes and drawing illustrations from ink to digital with very little hassle.

ASUS Z97-Deluxe USB 3.1

Price: RM 1,479

Contact: Build Technology Supply Sdn Bhd., Servex (Malaysia) Sdn. Bhd

Phone: (03) 7955 3699, (03) 8024 6688

Info: www.hp.com/my

Slot: Socket LGA1155 CPU: Intel Z97

RAM Slots: 4x DIMM Dual-Channel Memory RAM Type: DDR3

Ports: USB 2.0 x4, USB 3.0 x4, USB 3.1 x2, ThunderBolt x1

Size: ATX

PCMark 8

Home: 4,160 points Creative: 3,909 points Work: 4,253 points

CrystalDiskMark

Read: 750MB/s Write: 740MB/s

Performance:

Features:

Design:

Value:



The Z97 Deluxe USB supports AMD CrossFireX, NVIDIA SLI multiple GPU configuration and even M.2 SATA as well



Not only does the Z97 Deluxe USB 3.1 have USB 3.1 Type-A ports, it also has a ThunderBolt port built-in as well

Brand New Deluxe

ASUS' new Z97 Deluxe USB 3.1 offers future-proof upgrades with speedy USB ports


Ever since we first reviewed ASUS' revised Z97 motherboards with USB 3.1, ASUS has been busy fitting already-existing products with the brand new connectivity feature, in hopes that it becomes mainstream sooner rather than later. This time around, we take a look at the ASUS Z97-Deluxe USB 3.1 motherboard.

As far as port distributions go, the Z97 Deluxe USB 3.1 is not all too different than that of its non-USB 3.1 predecessor. It features six DDR3 DIMM ports, which support up to 32GBs of RAM, with speeds of up to 3,300MHz. As far as SATA ports go, it has four SATA III 6Gbps ports, one MSATA port and one PCIe SATA port, for even faster speeds. It also supports both AMD's CrossFireX and NVIDIA's SLI dual-GPU technology, so if you're looking to build a super gaming rig, this motherboard is a pretty viable option.

At the back is the typical adornment of I/O ports, but what's slightly different here is the inclusion of two USB 3.1 Type-A ports, which according to ASUS, promises transfer speeds of up to 1.0GB/s, which is considerably faster

than USB 3.0. And much like the ASUS X99 motherboard we reviewed previously, there are several steps you need to do before you're able to harness this awesome speed.

Installing the USB 3.1 Boost software is a requirement, as this is what will allow you to toggle the port's speeds to its full potential, as well as disabling the EIST and C-State from the BIOS page of the motherboard. These methods are a bit tedious, especially the BIOS portions, but if you happen to have a USB 3.1 device and are looking to make full use of the device and port's speeds, then these steps will be important for you to take note of.

During our tests, we found that the USB 3.1 ports' speeds average around 750-800MB/s, which is not too far away from ASUS' claims of 10Gbps speeds. Overall performance-wise, the Z97 Deluxe USB 3.1 also performs as well as can be expected. Overclocking is still a breeze thanks to its variety of companion apps and simple BIOS options, and not to mention that it also comes with a Thunderbolt port too, if the USB 3.1 ports aren't enough. 

+ Performance USB 3.1

- Lack of devices supporting USB 3.1

CHIP CONCLUDES

As far as most things go, the ASUS Z97-Deluxe USB 3.1 motherboard is pretty much the same Z97-Deluxe motherboard we've all seen before. The addition of the USB 3.1 ports serve as a means of future-proofing your PC's components if ever USB 3.1 becomes mainstream sooner or later.

ASUS Zenbook UX305

Price: RM 2,399

Contact: Build Technology Supply Sdn Bhd., Servex (Malaysia)

Sdn. Bhd Phone: (03) 7955 3699, (03) 8024 6688

Info: www.asus.com/my/

Operating System: Windows 8.1 Display: 13.3" IPS Full HD

Processor: Intel Core M 5Y71 @ 1.2GHz

Connectivity: Wifi, Bluetooth, USB 3.0 x 3

Memory: 4GB Storage: 256GB

Others: 2-in-1 card reader (SD/SDXC)

Dimensions: 324 x 226 x 12.3 mm Weight: 1.2KG

3DMark

Sky Diver: 1,340 points Cloud Gate: 3,223 points

PCMark 8

Home: 1,995 points Creative: 1,890 points Work: 2,190 points

Performance:

Features:

Design:

Value:



Thin, Mean, Working Machine

You can slip this into an envelope no problem


A mobile office is something that is needed by many in the fast paced world we live in. Of course the days of lugging around heavy notebooks is a thing of the past, in the day of tablets and lightweight machines. But then what if you really want the form factor of a full sized notebook, and yet the weight of a tablet? Presenting the ASUS Zenbook UX305.

The Zenbook is one of the first few machines in the market that runs Intel's Core M processor, the other famous is the machine that is from the fruit company, which will be a nice benchmark to compare to as they both have similar design inspirations.

With a Full HD (1080p) 13.3 inch screen, the Zenbook is big enough for proper work on the go as the screen is not too small or too big for people to tote it around while rushing between appointments. Sadly it does not come with a touch screen, and the bezel around the screen hints of a possibility for a larger screen size. However for this case, it is more than sufficient.

As stated earlier, the Zenbook runs the new Intel Core M processor, which is billed as a very power efficient and battery sipping processor from the CPU giant. One of the main features of having the chip is the ability for companies to create absurdly thin machines. The Zenbook is definitely one, as it is barely thicker than the thickness of this magazine!

In terms of connectivity, you will get a bucketful of ports, when compared with the single port that the competitor has on their thin machine. On board, there are three USB 3.0 ports, a microHDMI port, SD card reader, as well as a combo audio/headphone jack.

A drawback with the machine is the battery life – which is when tested, only managed to get about 8 hours with daily working conditions. We expected it to be beyond 10 hours, especially with the new processor. Another sore point is the touchpad – in particular the buttons. It felt stiff and needs a good deal of force to actuate. 



Proudly powered by Core M



This machine has more ports than the fruit company's...



Thin design
Full HD Screen
Full complement
of ports



Stiff buttons on
touchpad
Core M is enough
just for
productivity

CHIP CONCLUDES

A great device as a portable travelling office.

D-Link W215

Price: RM169

Contact: Advancenet Technology Sdn. Bhd., Ingram Micro Sdn. Bhd., SiS Distribution Sdn. Bhd.

Phone: (03) 8070 3633, (03) 7952 8188, (03) 5569 8878

Info: www.dlink.com.my

Standards: IEEE 802.11n

Power Input: 100 ~ 125V

Dimensions: 3.54 x 2.40 x 1.40 inches

Weight: 125g

Performance:

Features:

Design:

Value:



A Clever Way To Stay Powered

By Nicolas See Tho

The new D-Link W215 Wi-Fi Smart Plug is a cheap and easy way to start automating your home to become a smart house

As our devices are becoming smarter, so too should our homes, and one of the cheapest ways to do it would be with the D-Link W215 Wi-Fi Smartplug. This device allows you to control your devices that are connected via the plug via Wi-Fi, thus creating a sense of autonomy.

This smart plug comes in a ceramic white colour, and its design is simple to say the least. It has a power button located on the front while it portrays LED lights for Wi-Fi connectivity, while the bottom of the device has a built-in thermal protection for your appliances.

As part of the autonomous functions that this device gives you, this smart plug allows you to turn your connected devices on and off via smartphone or tablet with the bundled application. You could also

add schedules for your devices to operate whenever you want while keeping the devices from overheating with the in-built heat sensors. Additionally, you can also save money with the power consumption monitor that comes from the in view app screen.

During our tests with this device, we find that the plug has some inconsistencies as certain parts of the house becomes inaccessible while manoeuvring the devices through the app has proven to be inconsistent as well. The first trouble would be locating the application within the app stores while after setting up, some of the devices that we plugged in received inconsistent reminders. However, when the plugs are situated within the same vicinity, there are no such issues. ❏



Easy access to the WPS and reset buttons

- + Provides basic home automation
Has plenty of power saving features
- Inconsistent performance
App design is not user friendly

CHIP CONCLUDES

In conclusion, the D-Link W215 Wi-Fi Smart Plug is an interesting device that allows you to keep your home smart, but with its performance inconsistencies, some consumers may find it troublesome to troubleshoot the device. But on the plus side, it's much more affordable than other smart plugs on the market currently.

Philips BDM3490UC

Price: RM 4,299

Contact: Ban Leong Technologies Sdn Bhd

Phone: (03) 7956 6300 Info: www.philips.com.my

Display Size: 34" Resolution: 3440 x 1440 pixels

Connectivity: DisplayPort 1.2, HDMI 2.0 x 1, HDMI 1.4 x 2 (one with MHL), PC Audio In, Audio out Touch: No

Viewing Angle: 172 degrees (H) / 178 degrees (V)

Misc: USB 3.0 x 4, built-in speakers

Dimensions: 826 x 479 x 220 mm (with stand)

Weight: 10.3KG (with stand)

Performance:

Features:

Design:

Value:



Wide Screen Cometh

Philips sure knows how to make a great wide screen monitor

The wide, wide world around us is constantly evolving and moving – and is presented naturally in a curved manner. Our eyes are not just some flat surface to see content with – why must our monitors be flat as well? Philips is well known for their monitors – and we even have reviewed a couple before in our previous issues. Today, we have their brand spanking new product, the Philips BDM3490UC.

For those who are not in the know, curved monitors are currently becoming a trend among manufacturers as they offer a more natural view of the digital monitor than a flat screen can provide. In this case, it is a 34-inch panel, with a WQHD resolution of 3440 x 1440. Yes, this monitor has an above 2K resolution. While it is not 4K, it is more than sufficient to make it a 'more than Full HD' Monitor.

A few standout features of the monitor includes a built-in speaker in the stands, a built-in USB 3.0 hub at the back, as well as a complete array of connectivity for your inputs. You get both DisplayPort as well as HDMI, and in a couple different flavours for the latter. Two normal HDMI inputs

is available, as well as one that is MHL compatible – making it a trio of HDMI ports. There is also an Audio-in jack, as well as a headphone jack for output.

The On Screen Display controls for the monitor is accessed using the 4-way control located at the middle of the monitor, just under the Philips logo plate. Here, you can select your input, control the values for brightness/contrast/etc, as well as controlling the volume of the built-in speakers.

Using the monitor can be daunting for first timers. As it uses a 21:9 screen ratio, the long monitor will dominate your desk. Videos played on screen will have vertical black bars instead of horizontal ones as most videos are made with the 16:9 or 3:2 ratios in mind. However, with supported games, you will get the full experience of using the full 21:9 screen, and it is a glorious view indeed.

Our main concern at this point is the price – it is not exactly cheap to get a monitor this big, with this features list. However, for those who can afford it, it will be a worthwhile investment for your upcoming productivity and gaming life. 🇲🇾



You get a lot of ports with the Philips monitor



The built-in speakers are very decent

- + Punchy colours
- + Multiple connectivity options
- + Curved, 2K-plus resolution screen
- Price

CHIP CONCLUDES

A great investment into the new world of wide-screen curved monitors

MSI Prestige

Price: TBA

Contact: MSI Malaysia Office

Phone: 1 300 22 1386

Info: my.msi.com

Operating System: Windows 8.1

Display: 15.6-inch FHD (1920x 1080) Anti-Glare display

Graphics: NVIDIA GeForce GTX 960M

Processor: Intel Core i7-4720HQ

Connectivity: 3x USB 3.0, 2x USB 2.0, Mini Display port

Memory: 8GB **Storage:** 1TB HDD

Others: Gigabit LAN, SD card reader, Bluetooth v4.0, HDMI

Dimensions: 383x260x27mm **Weight:** 2.3kg

PCMark 8

Work : 2,725 points **Home:** 2,400 points **Creative:** 1,920 points

3DMark

Fire Strike: 3,134 points **Fire Strike Extreme:** 1,950 points

Performance:

Features:

Design:



A Prestigious Performance

By Nicolas See Tho

The MSI Prestige is made for those who wants to play today's games yet be able to work efficiently on the go

Not all users are equal and especially those who have a busy schedule because of work related responsibilities, and as such, the MSI Prestige is a performance-centric laptop build for entrepreneurs who enjoy playing the latest games, yet maintain the outlook of a business professional.

The laptop comes in a aluminium coated chassis design and black, backlit keys that exudes an elite status. It comes with a total of three USB 3.0 ports, dual USB 2.0 Ports and HDMI, LAN and SD card reader ports for multiple connectivity access.

This device comes with a slew of features jam packed into a complete bundle of amazing offerings, such as the adoption of Nahimic sound technology which immediately boosts audio performance. This laptop also comes with MSI True Color

technology which was optimised for six different usage scenarios which is separated into work or play. Additionally, this laptop also comes with the SHIFT feature which gives users total control on power management by pressing the FN+F7 keys which lets you switch between three power profiles.

This laptop comes with a wide selection of performance-centric capabilities, and it swept through our benchmarks such as 3DMark and PCMark 8 with ease. It was able to handle games such as Skyrim, Crysis 3 and Metal Gear Solid: Ground Zeroes at their highest settings with ease. However, with the power it grants, the battery life seems to be lacking as on a full charge we were only able to juice out a 90 minute duration from the battery alone, which means that this device is going to be a wall hugger.



You get three USB 3.0 ports, as well as a full HDMI port

+ Beautiful Display
+ Powerful Performance

- Low Battery life

CHIP CONCLUDES

All in all, the MSI Prestige is an exciting new breed of professional laptops that doesn't just cater for the traditional brand of gamers but for the new age gamers who split time between their career and their hobbies.

Lenovo ThinkPad Helix 2

Price: RM6,000

Contact: Lenovo Technologies Sdn.Bhd

Phone: 1 800 80 8575

Info: www.lenovo.com/my/en

Operating System: Windows 8.1

Display: 11.6-inch Full HD 10 Point Multi Touch

Graphics: Intel HD 5300 **Processor:** Intel Core M 5Y71 Processor

Connectivity: USB 2.0/3.0, MiniDisplay port, SIM card slot, Thinkpad Digitizer Pen, Intel Centrino Wifi Advanced-N 6205S

Memory: 8GB **Storage:** 256GB SSD SATA 3

Others: Detachable Keyboard, MicroSD

Dimensions: Tablet: 11.7" x 7.3" x 0.5"

Clamshell: 11.7" x 7.3" x 0.8"

Weight: Tablet: 1.8lbs

Clamshell: 3.8lbs

PCMark 8

Work : 2,780 points **Home:** 2,810 points **Creative:** 2,710 points

3DMark

Fire Strike: 540 points **Ice Storm:** 34,513 points

Performance:

Features:

Design:

Value:



The tablet detaches from the keyboard for stand-alone operations



An optional pen is available for hand-writing inputs

Best Of Both Worlds


Lenovo has brought forth an ultra-productive device in the form of the Lenovo ThinkPad Helix 2 which is both a tablet and a laptop

The latest trend seems to incorporate two different mediums as a singular device in an attempt to streamline productivity as well as efficiency when it comes to daily work, and the Lenovo ThinkPad Helix 2 is another iteration of that concept which was made popular by products such as the Surface 3 or the Dell Venue 11 Pro.

This 2-in-1 device comes in two variant forms which are the Tablet mode and the Laptop mode which is enabled by inserting the tablet to the detachable keyboard that comes bundled with it. On the back of the device is the rear 5MP camera and the front 2MP camera. It comes with a variety of connectivity options such as a 3G SIM card slot to help you stay connected to the internet, and USB 2.0 and 3.0 slots. It also comes with a microSD slot for expandable storage.

From the design by itself, its main

feature is predominantly in its flexible work modes which allows you to go from tablet straight into a laptop meaning you can keep your work data with you on the go while maintaining the same levels of productivity. It also has a stunning 400 Nit Display with IPS technology for high brightness and vivid colours. Additionally, this device also comes with a digitizer pen which helps provide touchscreen support via swiping, drag, open or clicking.

Performance wise, the Lenovo ThinkPad Helix 2 provides more than enough power to the average entrepreneur. During our benchmark tests with the device, it had scored highly on the PCMark 8 Tests while during our review, the product demonstrated smooth performance on video, music playback, and display experience. It also comes with an audio system that packs a punch, so no headphones would be necessary. 

 Flexible design
Has 3G SIM card connectivity

 Price

CHIP CONCLUDES

In conclusion the Lenovo ThinkPad Helix 2 is a good addition to any businessman on the go, but at its asking price, it may prove to be a barrier especially since it is priced well within other tablet/laptops with the same quality and performance, but nonetheless, this device's performance speaks for itself and can hold its own.

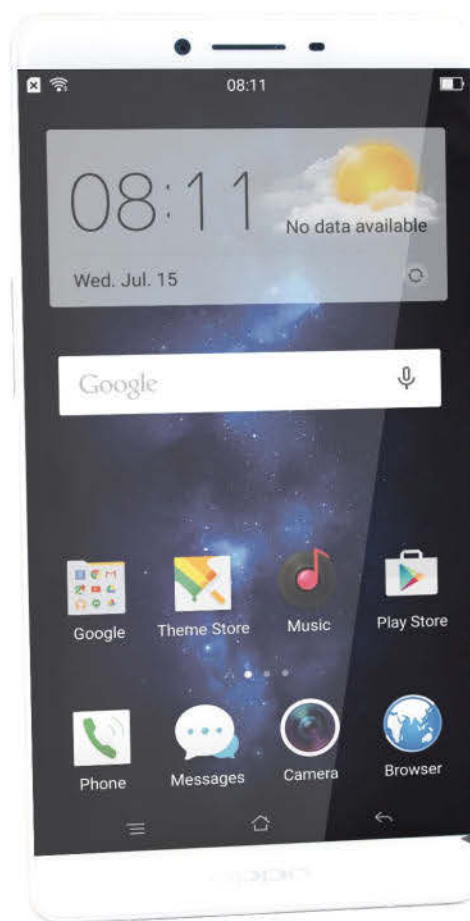
OPPO R7 Plus

Price: RM 1,998
Contact: OPPO Malaysia
Phone: 1800-88-6776
Info: www.oppo.com/my

Display: 6" Full HD
Processor: Qualcomm Snapdragon 615 Octa-core
Connectivity: 2G/3G/4G LTE/Bluetooth/Wifi
Memory: 3GB **Storage:** 32GB (+microSD up to 128GB)
Operating System: Color OS 2.1 (Android 5.1)
Camera: 13 Megapixels (back)/8 Megapixels (front)
Dimensions: 82 x 158 x 7.75 mm **Weight:** 192 grams

3DMark
Ice Storm: Maxed Out! **Ice Storm:** 5,577 points
PCMark for Android: 3,569 points
Antutu: 33,533 (64bit) 31,243 (32bit)

Performance:
Features:
Design:
Value:



By Sharil Abdul Rahman

A Bit on the Plus Side

OPPO's larger model proves that big is beautiful

There are times when a big phone is just a big phone, and it will make a pretty bulge in your pocket. There are also times when it can be just a little bit more. OPPO has been churning out respectable smartphones for the consumer market, and their latest phone that is now hitting the store shelves is the bigger than life OPPO R7 Plus.

While OPPO did launch the R7 series in China earlier this year, they have elected to bring the R7 Plus and R7 Lite to Malaysian shores, the later which we will review at a later period. The Plus shares the same specifications as the R7, but in a larger form factor. The octa-core Snapdragon 615 processor is the beating heart of the system, paired with 3GBs of RAM for smooth sailing performance in your pocket.

Paired to a large 6 inch AMOLED display which houses a Full HD 1080P panel, the R7 Plus is definitely a multimedia device on the go. Rounding up the phone are the 13-megapixel back and 8-megapixel front cameras, as well as a fingerprint sensor at the back of the body, just below the back camera.

The location is logical as it is where your fore finger will rest when you hold it in one hand.

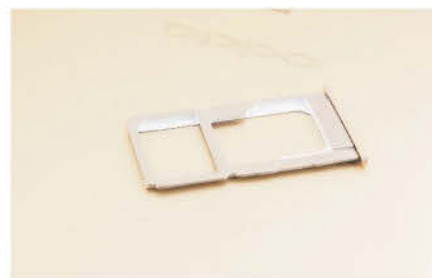
Using the R7 Plus is a bit daunting, as the phone is a big device – both in your pocket as well as your hand. You will definitely feel its presence when you use it. Thanks to the minimal bezel around the screen however, you will feel that the phone feels like it is built for a smaller phone than it really is. The 2.5D front glass also gives it a subtle finish that is missing in some of its peer.

With two colours available to choose from – Silver and Gold (a more rose gold than champagne gold), it is definitely classy in anybody's hands. Using it as a daily driver is also proves to be great, as it is not bogged down by apps or even the OS, which is the latest version of Colour OS, version 2.1 (based on Android Lollipop).

The biggest concern for the phone is the large size – which may not be everyone's cup of tea – as well as the finish of the phone, which is prone to scratches and dings. Other than that, the phone is a great large smartphone for your daily driver. 📱



R7 Plus's fingerprint scanner lives under the camera on the back



This phone supports both micro and nano-sized SIMs

+ Large screen
Classy looks

- Too large for
some people

CHIP CONCLUDES

If you are looking to go beyond a phablet, but not into the tablet, check out the R7 Plus from OPPO.

Cooler Master B700 ver2

Price: TBA

Contact: Ban Leong Technologies Sdn Bhd, Build Technology Supply Sdn Bhd

Phone: (03) 7956 6300, (03) 7955 3699

Info: www.coolermaster.com

Max power: 700W

Modular: No

Rating: 80 Plus

Dimensions: 150 x 140 x 86mm

Performance:

Features:

Design:



Designed For Everyday PC

By Nazrin Zain

Cooler Master's new PSU goes back to basics

At COMPUTEX earlier this year, Cooler Master unveiled its corporate rebranding and unveiled a host of new components, accessories and devices to reflect the company's new direction to ensure that both casual and hardcore enthusiasts alike are taken care of. The Cooler Master B700 ver.2 is one such product, a compact little power supply that is able to output a lot of power.

The Cooler Master B700 ver.2 power supply looks pretty standard as far as PSUs go, as it offers a black aluminium chassis but in a slightly more compact package that allows it to be fit into smaller PC cases such as mATX or miniITX ones.


Unfortunately, the B700 ver.2 is not a modular case, so some cable management will be required especially if you're looking to build a small HTPC or gaming PC. As far as connectors go, the PSU is equipped with one 24-pin power cable, one 8-pin PC power cable, two 6+2 pin PCIe power cable, as well as two SATA cables with three connectors each and one peripherals cable with four connectors attached.

Cooler Master has been hard at work reconstructing their power supplies from the ground up, and the B700 ver.2 is no exception,

as it now features a 12V DC Out single rail with maximum current of 54A. To prevent overvoltage, the B700 ver.2 is also protected with a built-in OverTemperature Protection (OTP) that prevents the rail from shorting out.

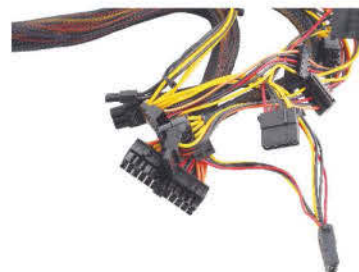
Not only that, the B700 ver.2 is also 80 Plus EU 230V certified, which means that the PSU is constantly above 80% efficiency regardless of the power draw from the PSU. It also meets the new carbon emission regulations and is ecoPSU certified, for assurance that it is an eco-friendly PSU.

One thing to note is that the B700 ver.2's 120mm fan is dead silent, thanks to the Hydro Dynamic Bearing technology that is used to eliminate friction between the fan and the contact point, which also in turn makes the fan last longer.

Being a 700 Watt PSU, the B700 ver.2 is capable of powering up some of the more high-end components with relatively no issues, such as a NVIDIA GTX 980 or an AMD R9 390 graphics card. The fact that the B-series PSUs come in a variety of power output such as 500W and 600W also shows that Cooler Master has thought out that not everyone will need that much power to run their PCs. 



The Cooler Master B700 ver2's vents have a honeycomb shape that allows more air to be pushed out by the fans for better airflow



Unfortunately the B700 ver2's cables are not modular, but there's enough of them to power up a component-packed PC



Performance



Not modular

CHIP CONCLUDES

The Cooler Master B700 ver.2 PSU is a good PSU for a variety of PC builds, be it a HTPC, a simple office PC or even a gaming PC.

Logitech MX Anywhere 2

Price: RM 329

Contact: Ingram Micro Sdn Bhd., MCL Sdn Bhd., M-Link Sdn Bhd., Kaira Technologies Sdn Bhd

Phone: (03) 7955 8188, (03) 8023 3800, (03) 7728 9003, (03) 7955 3669

Info: www.logitech.com/en-my

Connectivity: Bluetooth, RF **Buttons:** 5

Operating System Support: Windows 7, 8, 8.1, OSX

Battery Life: Two months

Dimensions: 61.6 x 100.3 x 34.4 mm **Weight:** 106 grams

Performance:

Features:

Design:

Value:



Go Anywhere

The perfect work anywhere mouse receives an upgrade


All mice are not created equal. Some are more than others, rest are of lesser build. Take example Logitech mice. They have been around the block for a couple of decades now, cresting mouse after mouse that garners great reviews and testimonials from all over the world. Case in point – the MX Anywhere mouse. Perfect for travelling purposes, it is no wonder Logitech did not want to change the recipe too much. Say hello to the MX Anywhere 2 mouse.

It still share the same shape and look of the original MX Anywhere, but the new mouse picks up details from the newest member of the MX family, the MX Master. With a similar gold/black colour scheme, as well as a geometric texture used around the thumb-grip area – it is undeniably an MX family member.

Instead of the original's AA battery, the new MX Anywhere 2 utilises a rechargeable battery that can be charged through the microUSB port at the front of the mouse. The two-mode scroll wheel is bought over from the previous model, as well as the

side-tilts. In fact, the button layout on the Anywhere 2 is the same as the original Anywhere, so users should feel right at home when using this.

What is marginally different is situated on the underbelly. Instead of the removable battery cover that is also the power switch, you get two buttons, a physical power switch and the Darkfield emitter, which allows the MX Anywhere 2 to function on just about any surface – even glass. What is new with this mouse is that apart from the RF connection with the Pico Unifying Receiver, you also get Bluetooth connectivity. Plus, you can have up to three different devices connected to the mouse, so you can leave the Pico Receiver at your desktop, and have the mouse connected to your laptop via Bluetooth. Handy.

Our biggest nitpick is that there is no storage for the receiver on the mouse itself, unlike its predecessor. However, the fact that it can use Bluetooth negates the need to lug it around so much, and up to three paired devices at once. 



The microUSB port is used for charging the battery



Pico receiver is very small, but no on-board storage for the receiver

+ Slim design
Multi-device
pairing
Compact size

– No storage for
pico receiver

CHIP CONCLUDES

A great go-anywhere mouse for the road warrior, plus multi device pairing makes it very useful.

Casio XJ-V1 Projector

Price: RM 3,399

Contact: Casio Malaysia Sdn Bhd

Phone: (03) 2724 1253

Info: www.casio-intl.com/my/en

Light source: Casio Laser & LED Hybrid

Native resolution: 1,024x768

Contrast ratio: 20,000:1

Light source life: Up to 20,000 hours

Ports: VGA, Serial, HDMI

Dimensions: 269.24 x 269.24 x 88.9 mm

Performance:

Features:

Design:

Value:



By Nazrin Zain

A True Eco-Saving Projector

Casio's new XJ-V1 lamp-less projector has a point to show


We've seen many projectors here at CHIP, and what all of them have in common is that they all use some sort of DLP lamp, many of which have varying degrees of power saving features, quick-on functions and the like. Casio is looking to change all that by replacing the lamp altogether, and has done so with the Casio XJ-V1 projector.

The XJ-V1 is a compact little projector, weighing in at just 2.8kg, which in our opinion is quite light for a projector, even compared with similarly-sized devices. Its compact white chassis houses a number of video connectivity options, including VGA, Serial and HDMI input. It has a native resolution of 1,024x768 pixels, but could still output sources from 1080p resolution devices such as notebooks and computer, but in a scaled down fashion.

Onwards to the XJ-V1's main claim to fame; its lampfree light source. Casio uses what is called Solid State Illumination, which uses LEDs, lasers and such to create a source of light that doesn't depend on gases that traditional lamps often rely on.

There are many advantages that can be had when using the XJ-V1 projector, such as power cost savings, ease of transport, but perhaps, the most important thing is the fast start up and shut down times. Quick shut down times in projectors are fairly common, but what Casio promises with the XJ-V1 is a six second start up time from a cold start or standby phase. Whilst it does take a fair bit more than just six seconds to start up, it is still extremely fast to boot up, taking not even half a minute to fully power on.

The XJ-V1's SSI lamp has an ANSI Lumens count of 2,700, which is pretty bright, even if the projector is not using a DLP lamp. For office use, it is perfectly usable even in brightly lit rooms, although it does look a lot better in dim or dark rooms.

For projection size, the XJ-V1 can project at 60 all the way up to 80 inches, which is pretty big for a device as compact as this one. That being said, if you're looking at projecting all the way to 80 inches, we highly recommend doing it in a dark room as a brightly lit room is likely going to affect the projection quality. 



The Casio XJ-V1 features video-in options such as Serial, VGA and HDMI ports



Being lamp-free means that you save on having to replace them, not to mention fast start up and shut down times

+ Performance Features

- Low native resolution

CHIP CONCLUDES

The Casio XJ-V1 projector is an excellent projector if you're looking for one that requires very little maintenance, is easy to use and very compact.

ASUS FreeSync Monitor

Price: RM2,769

Contact: Build Technology Supply Sdn Bhd., ECS Astar Sdn Bhd

Phone: (03) 7955 3699, (03) 6286 8222

Info: www.asus.com/my/

Display Size: 27.0 inches

Resolution: 2,560x1,440 pixels

Connectivity: HDMI x2, DisplayPort 1.2 x1, miniDisplayPort 1.2 x1

Refresh Rate: 144Hz Touch: No

Viewing Angle: 178 degrees all sides

Dimensions: 625 x 559 x 238 mm Weight: 7.3kg

Performance:

Features:

Design:

Value:



More Than Just Fast Framerrates

ASUS' new FreeSync monitor is made for professionals and enthusiasts alike

ASUS has recently announced and launched the ASUS MG279Q FreeSync monitor, featuring AMD's FreeSync technology to provide gamers with stellar graphics display prowess and gaming experience.

As its name implies, the MG279Q monitor features a 27.0 inch IPS display, with a screen resolution of 2,560x1,440 pixels as well as a refresh rate of 144Hz when connected to a FreeSync-capable AMD graphics card.

As far as looks go, the MG279Q is a pretty standard-looking monitor, with an overall black chassis with the ability to tilt, swivel and pivot for a variety of display setup orientations. Not only that, you can also adjust the height of the display to a certain degree, to also make the monitor more comfortable to use.

ASUS claims that the MG279Q monitor has 100 percent sRGB colour gamut, and has an astounding 178 degree viewing angle, meaning that regardless of where you or anyone else is standing in front of the monitor, they'll get the same high quality output as if you're seated right opposite the screen.

As mentioned, this is ASUS' first FreeSync display, and it also comes with a number of

important features that can only be utilised if you pair the MG279Q with an AMD R9-series GPU that supports the display technology. This includes the 144Hz refresh rate at the monitor's maximum display resolution of 2,560x1440 pixels, as well as FreeSync itself, which syncs the monitor's refresh rate to the one that is being output by the graphics card. This eliminates the de-syncing, or tearing issues where the draw rate of the GPU is not synced together with the monitor's refresh rate, causing the images to appear 'torn' when displayed.

Not only that, it also comes with ASUS-exclusive GameVisual technology, which is essentially a colour preset for a variety of game types and various multimedia uses, including FPS, RTS/RPG, Racing, Cinema and sRGB

During our tests with games such as Tomb Raider, Final Fantasy XIV and Middle Earth: Shadow of Mordor, we found that the MG279Q performs best with an AMD GPU for the reasons that we stated above. Being able to play these games at butter-smooth framerates and beautiful graphics fidelity makes this monitor makes the investment all the more worth it, especially if you're a PC game enthusiast. 🎮



The ASUS MG279Q features a bevy of connectivity options that allows you to connect multiple machines to the monitor



ASUS is also kind enough to add cable management to the list of impressive features on offer for the MG279Q

+ Performance Features

— Price

CHIP CONCLUDES

The ASUS MG279Q FreeSync monitor is definitely a great monitor to have if you're looking to build a gaming PC with an AMD R9 series GPU to take full advantage of everything AMD's FreeSync display technology has to offer.

ASUS ZenWatch

Price: TBA

Contact: Dynamics Distribution Sdn Bhd., ECS Astar Sdn Bhd

Phone: (03) 8024 2100, (03) 6286 8222

Info: www.asus.com/my

Display: 1.63" AMOLED LCD

Processor: Qualcomm Snapdragon 400

Connectivity: Bluetooth 4.0 Memory: 512MB Storage: 4GB

Operating System: Android Wear

Dimensions: 51 x 39.9 x 7.9 ~ 9.4 mm

Weight: 75grams (including leather strap)

Performance:

Features:

Design:

Value:



Thin, Mean, Working Machine

By Sharil Abdul Rahman

You can slip this into an envelope no problem

A watch is something you use to how time right? Not these days, with the proliferation of smart watches. From smart watches that tells time and a bit more, all the way to supercomputers that can tell when the next moon cycle for your moonlit run. One of the bigger platform is Android Wear, and ASUS is on board with the Google platform, and came out with their own interpretation of the smartwatch powered by Google – the ASUS ZenWatch.

From the box, the ZenWatch looks like a sophisticated watch that fits well with just about any fashion that is currently trending right now. The leather strap reminds you of high-end watches, and the metal construction means that it is robust enough that it can withstand some rough and tumble, but up to a point.

The crux of the device is the touch screen that dominates the front façade of the watch. When we said dominate, it is still a square screen surrounded by a substantial bezel. We wish the display encompasses the whole front panel of the smartwatch, but the design of the watch prevents this from happening as it will increase the cost of the smartwatch.

Inside this seemingly normal looking

smartwatch lies the heart of a smartphone. The Qualcomm Snapdragon 400 is the CPU of choice for ASUS, and this means that the watch has some hefty processing power under the hood. Of course there is a drawback, but that point will be touched upon later.

Thanks to the current Android Wear update, new features has been added to the watch such as gesture controls, better integration with Google Now and so on. You also get more watch faces to be used with the ZenWatch, or if you prefer – you can create your own thanks to the open nature of the watch.

The biggest drawback for the ZenWatch is the battery life. While normal watches can go up to a few months on a battery, the ZenWatch will be gasping for power in under 12 hours. If you disable notifications, you may get another few hours of battery life but that defeats the purpose of a smartwatch doesn't it?

Sure, the ZenWatch looks pretty, and it actually works well with your Android phone, but it only works with the Android platform for now, and the battery life is not the best.



All metal back is surprisingly comfortable



The strap is sufficiently luxurious that you think it is a high end watch

- + Exquisite watch-like look
- + Responsive touchscreen
- + Real leather strap
- Battery life

CHIP CONCLUDES

First from ASUS, the ZenWatch is a great example of a good first cast, but as any first generation, improvements can be made.

BenQ XR 3501 Curved Gaming Monitor

Price: RM4,000

Contact: BenQ Marketing & Services Sdn. Bhd.

Phone: (03) 7954 7800

Info: www.benq.com.my

Display Size: 35-inch LED AMVA

Resolution: 2560x1080

Connectivity: HDMI, DisplayPort, Audio in/out, Headphone jack,

Refresh Rate: 144Hz

Touch: No **Viewing Angle:** 178/178

Dimensions: 853 x 499 x 206mm **Weight:** 15.9kg

Performance:

Features:

Design:

Value:



A Gaming Prodigy

By Nicolas See Tho

The new BenQ XR 3501 Curved Gaming Monitor has made gamers online wet with excitement because of its visual prowess, we take a look at what the buzz is about.

If there is one thing that gamers want more than just a powerful rig, it would be a monitor that can complete their gaming experience. With that in mind, BENQ has recently provided gamers with the gaming monitor that they need in the form of the XR 3501 Curved Gaming Monitor.

Setting up this large monitor is not as hard as it seems, as you just have to plug in the cables and the HDMI connector to your PC, and you are ready to go. There are two HDMI ports, one mini DisplayPort and a DisplayPort 1.2 located on the back of the monitor as well as the audio in/out ports and headphone jacks. The front panel has the menu settings, power button and configuration settings.

The main features of this gaming monitor can be seen on its 2000R Ultra Curve view which envelops your field of vision for better

game immersion. It also comes with a high 144Hz refresh rate, thus giving smooth frames and fluid transitions. This device also lets you control colour vibrance through its 20 level Colour Vibrance setting while the Black eQualizer reveals more in the game when there normally would be just dark scenes.

One of the most amazing things we have done when reviewing this monitor was through atmospheric games whereby the surroundings are capitalised. This was tested through playing games like World Of Warships, Metal Gear Solid: Ground Zeroes and Skyrim. The results were breath taking while gameplay proves to be smooth and enjoyable. This device provided some vibrant colours while the depth of vision provided was also a great experience boost. 🇲🇾



It has a very clean rear side, with good cable management

+ Vibrant Colours
Good feedback

— Price

CHIP CONCLUDES

All in all, the BENQ XR 3501 Curved Gaming Monitor is a great addition to any gamers rig, and it would display your games like never before, but at the price it is going for, many lower budgeted gamers would find it hard to acquire this magnificent monitor.

ASUS Strix R9 380

Price: RM999

Contact: Build Technology Supply Sdn Bhd., ECS Astar Sdn Bhd

Phone: (03) 7955 3699, (03) 6286 8222

Info: www.asus.com/my/

GPU: AMD Radeon R9 380

Memory: 2GB

Ports: HDMI, DVI, Display Port, HDCP

Slot Size: Single

Dimensions: 27.1 x 13.9 x 4.2 cm

3DMark Fire Strike Extreme: 3,716 points

Performance:

Features:

Design:

Value:



The STRIX branding is prominent here, as well as the cooling pipes

Speedy Gaming

The ASUS Strix R9 380

Gamer's can once again look forward to a new toy for their rigs, as the ASUS Strix R9 380 is here to play. This new graphics card is one of the latest ASUS cards that was produced via a new production method called Auto Extreme through this line of production, the card gets increased longevity and durability through removal of human error. So let's take a look at how it performs.

The graphics card reveals the traditional theme for ROG based products with the black cutting edge design coupled with its Dual Wing Blade 0dB fans. It also has the usual DirectCu II 10mm heatpipes. Port-wise, it supports HDMI, DVI, DisplayPort and HDCP outputs. Slot-wise, this graphics card takes up a single PCIe 3.0 slot.

This device packs a ton of features such as the extra cool Dual Wing-blade 0dB fan design which allows improved airflow and static pressure while the DirectCU II heatpipe designs help reduce the temperature by 20 percent and brings noise

levels down to an all-time low. Additionally, this graphics card also comes with the Xsplit Gamecaster which lets you easily stream and record your gameplay via an in game overlay while an 8-phase Super Alloy Power II greatly enhances efficiency and power loss reduction.

During our tests with this device, we placed it through some benchmarking software's such as 3DMarks Fire Strike Extreme and Fire Strike, which came back with satisfactory results. One of the performance issues we notice is that due to the low VRAM available on this graphics card, playing games on high resolutions tend to be a strain and thus resulting in lower framerates. Regardless, we were still able to play games such as Metal Gear Solid : Ground Zeroes, and World of Warships on the High settings. Overclocking this device had also provided an interesting output which is a 20 percent leap in performance.



Only single DisplayPort and HDMI, but dual DVIs

+ Plenty of features
Quiet
performance
Good cooling
capabilities

- Low VRAM
strains high
resolution
requirements

CHIP CONCLUDES

All in all, the ASUS Strix R9 380 is a higher mid ranged graphics card that would suit gamers who need higher levels of performance but at a lower costs. While some games may strain this device on its highest settings, most of the modern games of today should not be facing any serious issues.

MSI GTX 980 Ti Gaming 6G

Price: RM3,359

Contact: Media Forte (Malaysia) Sdn Bhd., JW Power Marketing Sdn Bhd., AMT PC Distributors Sdn Bhd

Phone: (03) 2287 1177, (03) 2148 1307, (03) 3344 1124

Info: my.msi.com

GPU: NVIDIA GTX 980 Ti

Memory: 6GB GDDR

Ports: HDMI 2.0 x1, DVI-I x1, DisplayPort 1.2 x3

Slot Size: Double

Dimensions: 269 x 140 x 40

Weight: 1068g

Fire Strike: 14,227 points

Fire Strike Extreme: 7,427 points

Fire Strike Ultra: 3,981 points

Performance:

Features:

Design:

Value:



Come At Me, Bro

The MSI GTX 980 Ti Gaming 6G eats games for breakfast, lunch and dinner

This would be our first third party NVIDIA GTX 980 Ti review after we got to play around a bit with the reference card last month. How will MSI improve the already powerfully impressive GTX 980 Ti? What sort of performance levels can we expect to see in this card? Read on to know more about MSI's own GTX 980 Ti Gaming 6G.


MSI has installed its own brand new Twin Frozr V cooler onto the GTX 980 Ti, and what this brings the new flagship NVIDIA card is a cooler and quieter operating temperature, better performance levels, and even great overclocking options depending on what you're running the card for.

The Twin Frozr V cooler features two brand new Torx fans which maximises downward airflow and air dispersion to the heatsinks which are located underneath them. On top of that, the SuperSU Pipe uses a nickle-plated base to absorb the heat away from the GPU, transferring them to 8mm heatpipes which are then cooled down by the air blown towards them via the Torx fans.

The GTX 980 Ti comes clocked similar to

the reference card, but what's different here is that the card now has several overclocking presets that allows you to push the card's performance even higher, depending on what you need them to do. This includes the Silent Mode at the lowest level, Gaming Mode, which overclocks the card's base clock to 1,140Hz and OC Mode, which pushes it even further to 1,178Hz.

On each mode, you can also boost the clock higher into 1,200Hz territory if you so desire. A popular feature for many graphics card manufacturers these days is the 0dB fanless mode, and MSI has it on the GTX 980 Ti Gaming 6G as well. Typically the fan will turn only when it's being taxed with tasks such as benchmarking and gaming, and even then, the card is relatively silent even when running at full speed.

Testing games such as The Witcher 3, Middle Earth: Shadow of Mordor and Metal Gear Solid V: Ground Zeroes, there isn't a game that the card can't run at the highest settings at 1080p. In some cases, even at 1440p, the card is still able to keep a high level of framerate that makes it run beautifully with relatively little issues. 



As with the stock 980 Ti, MSI's version has a variety of connectivity options for you to choose from



The MSI GTX 980 Ti requires the use of two 8-pin PCIe power ports to get up and running

+ Performance

— Price

CHIP CONCLUDES

The MSI GTX 980 Ti Gaming 6G is a powerful card that has quite likely fixed a bit of the 980 Ti's niggling issues such as noise and cooling. Gaming enthusiasts who are looking for an upgrade to their monster gaming rig won't go wrong with MSI's offering.

ASUS STRIX R9 390

Price: RM1,699

Contact: Build Technology Supply Sdn Bhd., Servex (Malaysia) Sdn. Bhd

Phone: (03) 7955 3699, (03) 8024 6688

Info: www.asus.com/my/

GPU: AMD R9 390 Memory: 8GB GDDR5

Ports: HDMI x1, DVI x1, DisplayPort x3

Slot Size: Double

3DMark (Fire Strike): 10,591 points

3DMark (Fire Strike Extreme): 5,321 points

Performance:

Features:

Design:

Value:



A Challenger Has Arrived

By Nazrin Zain

AMD's R9 390 provides an alternative to the high-end 1080p gaming sphere

At the Electronic Entertainment Expo earlier this year, AMD announced its array of brand new R9 300 series GPUs and the much-awaited R9 Fury and Fury X flagship graphics cards. While we are still waiting for the Fury cards to arrive to local shores, AMD has wasted no time in getting the other R9 300 cards out in the market, and ASUS was kind enough to quickly send us the ASUS STRIX R9 390 graphics card.


Powered by the same Hawaii graphics processor that was inside the R9 290 graphics card, the R9 390's core clock is factory overclocked to 1,050MHz on Game Mode, and can go up to 1,070MHz in OC mode. The key differences between this card and its predecessors? The fact that it comes with a whopping 8GB of GDDR5 memory, and a brand new cooler.

The brand new cooler we're speaking of is of course ASUS' brand new Direct CU3 cooler, which now features three fans and dual 10mm heatpipes to keep the R9 390 as cool as possible. Much like the previous iteration of STRIX graphics cards, the STRIX R9 390 also features ASUS' patented OdB fan design, which doesn't spin until the graphics core hits

a certain temperature, which usually happens when the card is benchmarking or playing a game.

As far as connectivity goes, the STRIX R9 390 has one DVI port, one HDMI port and three DisplayPort ports, allowing users to connect up to three monitors simultaneously to one card. As for powering up the card, you will need to hook up one 8-pin and one 6-pin power port to boot it up.

We tested the card with a variety of high end current generation games such as The Witcher 3, Crysis 3, and Tomb Raider, and found that the card performs extremely well on the highest settings at both 1080p and 1440p. Coupled with the ASUS FreeSync monitor that we're also reviewing, the in-game graphics look amazingly detailed and vibrant, with nary a lagging pixel in sight.

That being said, the card's DCUIII fans started kicking in a while after we started gaming, and the heat generated by the GPU can certainly be felt, especially on our test bed. The cooling prowess of ASUS' DCUIII can be seen here as the fans and heatpipes do its best to dissipate as much heat as possible from the card. 



The ASUS STRIX R9 390 isn't short of video-out ports for you to use.



A single 6-pin and 8-pin PCIe power cables are required to boot up the R9 390



Performance



Power consumption

CHIP CONCLUDES

The ASUS STRIX R9 390 is a great solution if you're looking for an AMD-based high-end gaming card. With FreeSync monitors finally making themselves available in the market, it's definitely a good time to go AMD.

D-Link DWR 710

Price: RM139

Contact: Advancenet Technology Sdn. Bhd., Ingram Micro Sdn. Bhd., SiS Distribution Sdn. Bhd.

Phone: (03) 8070 3633, (03) 7952 8188, (03) 5569 8878

Info: www.dlink.com.my

Ports: USB 3.0

MIMO: No

Connectivity: 900/1800 MHz or 850/900/1800/1900 MHz

Power Class 4 (850/900 MHz)

Power Class 1 (1800/1900 MHz)

Network Standard: 802.11 b/g/n

Encryption: WEP/WPA/WPA2

Performance:

Features:

Design:

Value:



Just slip your SIM into the slot, and mobile 3G is yours



Thanks to the USB, you can plug it into your laptop, or even your battery pack, and you get a mobile wifi hotspot

A Modern Bridge

By Nicolas See Tho


There are plenty of routers available on the market, but none brings back more memories than the D-Link DWR 710 which is a 3G router/modem

Remember the days before the prevalence of in-built Wi-Fi, we would have to make use of 3G dongles to get our internet fix outside of our homes. The D-Link DWR 710 brings memories of those days but with a modern take on the design and features.

The dongle comes as in a simple and easy package which is a USB 3.0 dongle that connects to your PC or laptop. It has an indicator on the front that lets you know about the Wi-Fi connectivity or online status. Setting up the dongle was also easy as ever, as you only need to plug it in to the PC, install the drivers, and you are good to go.

This device's main feature allows you to place a 3G SIM card to provide HSPA+ speeds network to up to eight devices via Wi-Fi, and this can be done by plugging the device

to any USB power source. This dongle also provides WPA2/WPA encryption for peace of mind when using this device outside.

The dongle has certain benefits and quirks when it comes to performance. On the plus side, the device has excellent connectivity as we were able to get steady networks in various places, while it leaves some room for improvement as it could have been better if this device had also supported LTE sim cards, which leads to the fact that the dongle only supports the normal sized SIM cards and not micro or Nano SIM, which is a hindrance considering those two form factors are the norm nowadays. The dongle however, does make it more convenient to set up a Wi-Fi zone for your devices as connecting the devices proved to be easy while connections speed were fast and smooth. 

+ Can connect with up to 8 devices
Can become a workable router

- Could have been better with LTE
Not MicroSIM

CHIP CONCLUDES

In conclusion, the D-Link DWR 710 is a nifty device to carry around if you have a spare SIM card that you want to use as a 3G hotspot device, but with the prevalence of smartphones being able to become hotspots themselves, this device might not see much usage except from the fringe consumers.

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You can create a Zinio account from the app itself or log on to www.zinio.com to do it. All you need is an email address and a password.

Step 3: Download CHIP Malaysia

Launch Zinio and you'll see three tabs at the bottom. Click on the 'Shop' tab and search for 'CHIP Malaysia'. When you see our cover, that means you're close to getting your hands on CHIP Malaysia's iPad magazine.

You have the option to get the newest issue or subscribe to 12 issues. Select an option and pay for it via PayPal or Credit Card.

Step 4: Read

Once that is done, tap 'Library' at the bottom bar and you'll see the cover of the issue you bought. Tap on it and you're done! Zinio will let you read while it downloads the remaining pages. Enjoy!

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Travelling with Little Tots

Going on a holiday with babies and toddlers in tow? Here are my list of essential items that I would highly recommend you to bring along together with other holiday essentials like your money, smartphones, camera, clothes and lots of optimism By GeekMommy



Baby Carrier or Sling

When you're at the airport, train or bus station jostling with the crowds and having to carry your luggage and maybe active toddler, strapping your baby onto a sling or carrier is a must. Not only does it free your hands to juggle the passport, bottles, bags and other 101 things, you have a peace of mind that baby is close to you. The little bub may even fall asleep too. When not in use, just keep it in a recycle bag and tie onto your luggage or backpack.

that you can cook with just boiled water and add raisins. Most kids after one years old are able to eat outside food but when you're travelling there might be delays. So having your kid's meal ready saves a lot of unnecessary crying from hunger pangs.

Diapers and Wipes

If you're going on a long vacation, check if the local supermarket carry your brand of diaper and wipes. If yes, just bring enough for the first three days and restock at the local store. Else, it would be good to bring them along. You can never have enough diapers and wipes when travelling. Spills and mess can and will happen.

Entertainment

Bring some of your kid's favourite toys and download some of his favourite cartoons into your Tablet or Smartphone as you may not get WiFi while on the go. Try to bring lightweight toys that are not too bulky or tiny. If your kid is younger than four years ago, please leave the Lego pieces at home. If your kid likes to doodle, bring some blank papers and some child safe colouring pencils, crayons and markers.

Stroller

When your child is too heavy to be carried on a sling, a stroller would be come in handy. Your child could sleep and drink while in a stroller. Although you may think your little one is able to walk by now, their tiny and short legs gets tired very fast. That's when a stroller comes in handy. Just pass to the stewardess before boarding your plane and they will have it ready upon arrival.



Brio Go - Travel Set

Child Car Seat

Lastly, ensure that your rented car comes with a child car seat or bring your own child bolster seat, for kids above four years old. Always place car seat rear facing for better safety. Never risk your child's safety at the price of convenience. 🇲🇾

Geek Mommy tries to makes sense of the tech world for the less techie while managing a household, a job and keeping a toddler busy. More of her musings at <http://geekmommy.info/>



Thermal Magic Cooker

This special thermos is able to continue cooking your porridge on the go. Just boil the rice, vegetables and meat over the stove for about 15 minutes, pour it in and your kid's meal would be ready after 3 hours. You can also buy fresh produce at the local mini market. If you don't have time to do so upon arrival, pack some instant oatmeal

WATCH

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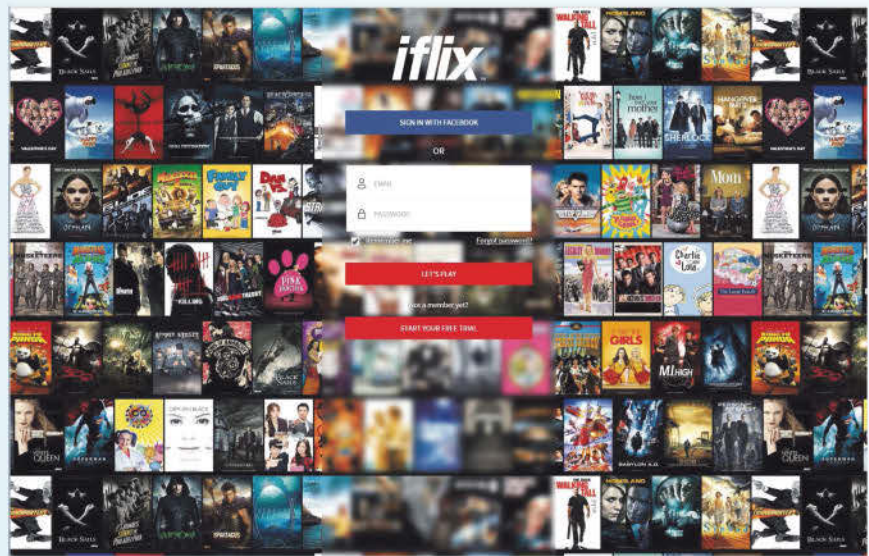


iflix is the best thing to ever appear on our webpages, and we share reasons why you should subscribe to them right now By Sharil Abdul Rahman

We have now embarked on the path of getting legal content on the web, thanks to the new upstart iflix. Started as a partnership between Catcha Group and Evolution Media Capital, iflix is designed to provide content to customers across the region hours and hours of curated and updated TV shows and films for the enjoyment of the users. But what makes iflix stand out? Here are 5 reasons why they can and should be your next option for media consumption.

Growing Content Library

Iflix has been hard at work, joining forces with major studios around the world in providing content for iflix customers. Notable names including Disney, MGM, Paramount Pictures, Fox, BBC, and even Media Prima is now on board with iflix as they continue on to upload new content onto the iflix system for the benefits of the customers. At last count, the media library boasts over 10,000 hours of viewable content, with more being added every single day. Best of all, there is zero ad played before, during or after your content.



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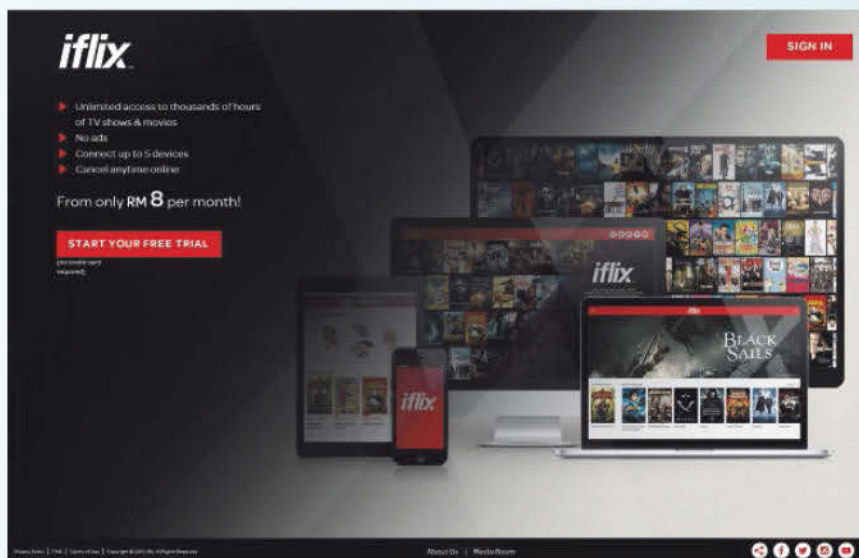
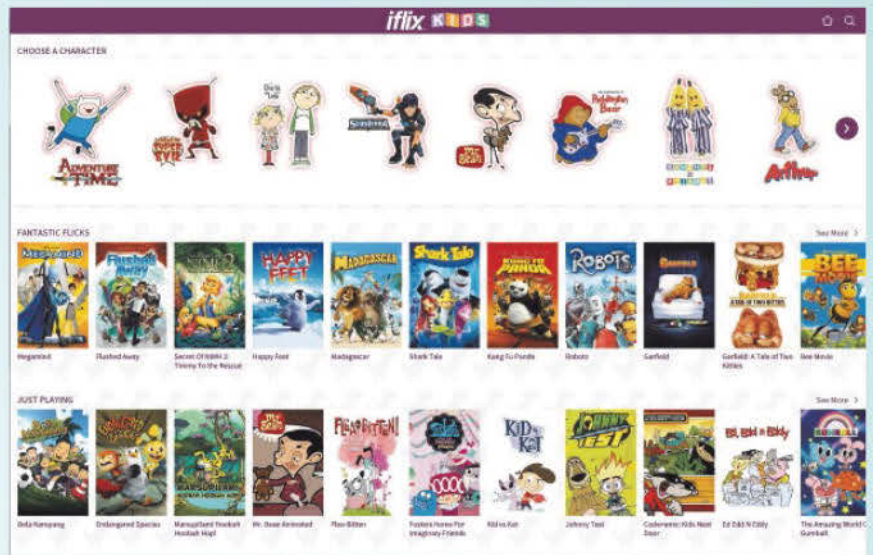
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If pricing tiers is a major concern for you, don't be. Iflix has an unbeatable offer that may make you just turn off your Astro subscription forever. For only RM 10 a month, or RM 96 a year (which translates to only RM 8 a month!), you get everything on offer, without any other packages or hidden costs. You can even pay it with your credit/debit card, or if you prefer – through your online banking service. In fact, it is also as easy to cancel the subscription – it only takes one click. With just one payment, you get unlimited access to all the content, anytime and anywhere.

Kid Mode

For parents, don't worry as iflix has stocked up with a treasure trove of kid-friendly content for the young (and perhaps the young at heart!). Better still, has created a Kid Mode, which is populated with only kid-centric content, so they will not be able to play any unwanted content accidentally while browsing through the library. Best of all, the Kid Mode still feature functions that is similar to the Home mode such as playlist and playback history. For more security, iflix feature parental control, so that certain genres can be set as off-limits to kids.

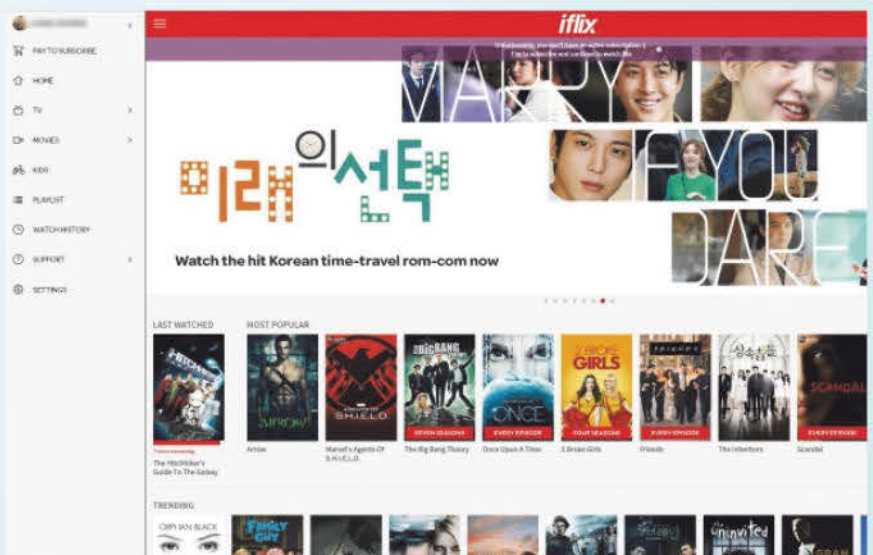


Multi-platform Access

Right now, the platform is playable on just about any platform available, with supported platforms includes iOS, Android as well as Windows and Mac. For the desktop systems, it is available through the web browser, with supports including Chrome, Firefox and Internet Explorer. As of today, there are no other platforms supported, but the team at iflix is hard at work in supporting more devices.

Value-add Features

A great feature on iflix is the Watch History, as it allows you to go back and retrace your binge-watching footsteps, and track down which episode of your favourite TV show is not yet seen. Also a great feature is the ability to create playlists on the fly, so that you can create playlist of movies and TV shows that is tailored just for you.

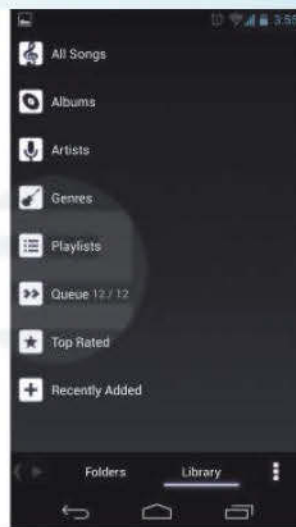
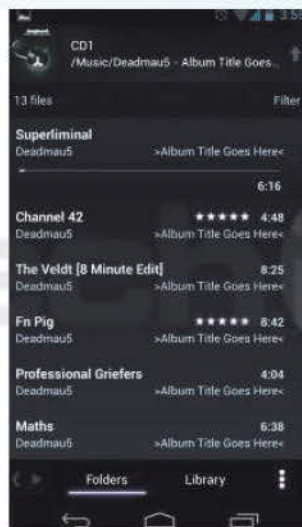
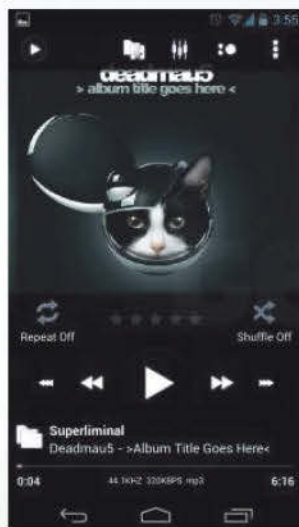


Android Music Player

Music streaming apps may be all the rage these days thanks to its freemium model, and legitimate way to listen to music without having to spend a significant amount of money to purchase albums and songs. That being said, sometimes the songs that you listen to simply aren't available on either iTunes or Spotify, or connection is not too conducive for streaming. Here are our take on some of the music listening apps that we use. By Nazrin Zain

PowerAmp Max MP

If you're an audio power-user, PowerAmp is probably an app that you'll want to seriously consider. It may not be a free app, but what it offers you is a boatload of features, which include playback for a multitude of music file formats including mp3, mp4, OGG, FLAC and WAV amongst others, as well as a 10-band optimised graphical equaliser including custom presets for bass and treble adjustments. These are just some of the seemingly unending features PowerAmp has to offer, so give the trial version a try, and buy it if you think it's worth your money.

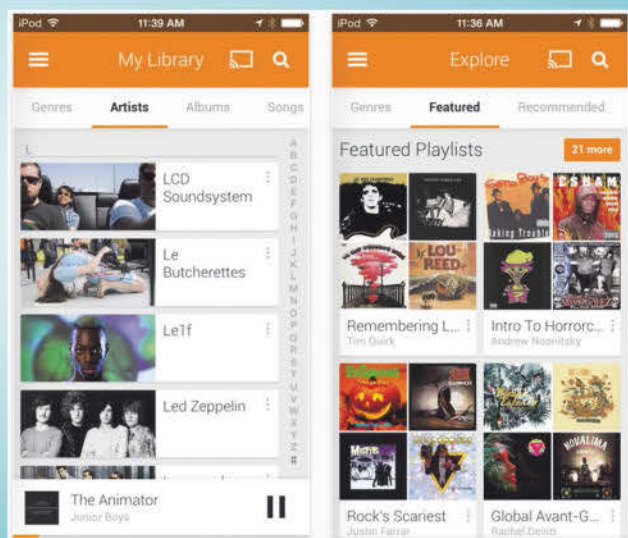
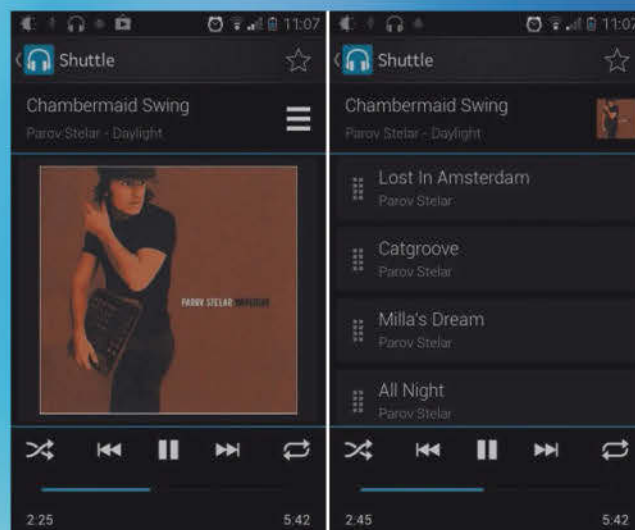


Equalizer+ DJT

Similar to PowerAmp, Equalizer+ is a very powerful music player for Android devices. Not only is it a music player, it is also a music equaliser, featuring a 5-band equaliser, as well as a bass amplifier. There are also built-in audio presets that allows you to listen to your music in a different way. Despite its multitude of features, they're all pretty easy to access thanks to the app's simple layout design. While the base app is free, there are also other features you can unlock if you pay for them.

Shuttle Music Player SimpleCity

Shuttle Music Player is a far simpler music player, but don't be fooled because it still has a number of features that you will certainly come to appreciate. This includes a 6-band equaliser with bass boost, gapless playback, automatic artwork downloads, customisable widgets and Last.FM scrobbling. The paid version meanwhile will also net you id3tag editing, folder browsing and even the ability to stream the audio playing from your phone to a Chromecast that's connected to a TV.



Google Music Google Inc

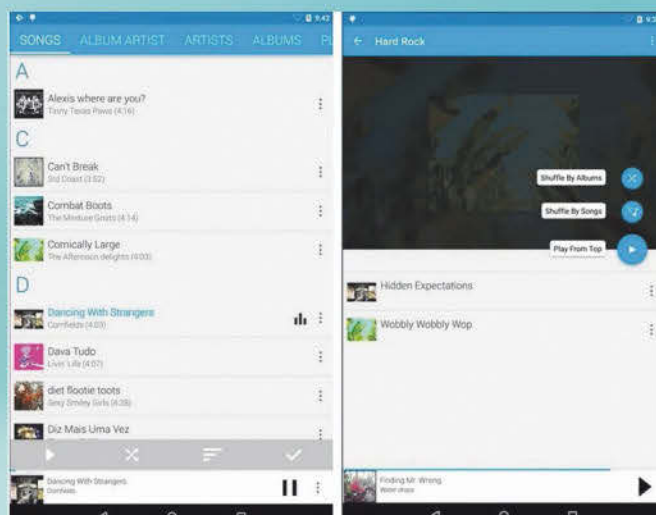
This last entry is a music playing app that's not quite like the rest of the ones on this list as it is more of a streaming app. The biggest difference here is that on top of streaming music that you can buy on the Google Music app store, you can also upload up to 50,000 of your own songs to the cloud-based music player for free.

Functionality-wise, Google Music is far simpler than what the other apps has to offer, but if you ever find yourself with a device that has limited storage space, Google Music is an excellent backup to have on your device as a music playing app that hardly takes up any local storage at all. If you wish to have a local copy of your songs, there is also an option you to download them to your device.

Rocket Player JRT Studio

Rocket Player's a relatively new player in the game, but don't let that fool you. The free version of this music player includes features such as 5-band equaliser with presets, over 30 different themes, album art manager and id3tag editor, custom lockscreens and scrobbling support; and that's just in the free version.

The Premium version meanwhile provides users with even more features, such as support for a variety of lossless music file types, a 10-band graphic equaliser, and playlist backup and syncing, amongst many others.





Rebirth Of NavyField

By Nicolas See Tho

Once upon a time, there was a niche number of players who used to play a game of naval warfare called NavyField, which was a naval battle simulator which created one of the most realistic sea battle games on PC ever made, with real world physics, as well as real ship data from the WW2 era. It closed down after a few years, due to its high learning curve and dwindling number of players. Fast forward to the year 2015, and we have have a reboot of sorts, and this time, it has taken a new name in the form of the World of Warships, created by Wargaming and Lesta Studios - better known for their realistic war games such as World of Tanks and World of Airplanes.

World of Warships starts out by easing the players into the game with two main

nations which are America and Japan, and introducing four classes of ships which are the all rounded cruisers, sneaky destroyers, hulking battlecruisers, and the magnificent aircraft carriers. Each class plays differently, but one thing remains the same, and that is teamwork.

Cruisers are the ships you would see from the early stages of the game at tier 1 all the way to the late stages of tier 10. They are the jack of all trades, but excels at nothing in spectacular. There are several differences however between Japanese and American cruisers. Japanese cruisers tend to have better torpedoes while the American cruisers have better guns. Cruisers provide an excellent barrage of firepower for your team as well as good anti air armaments. They would normally be the assault force for

the team.

Destroyers are a special class of ships that does like their namesake, which is destroy other ships. Japan once again has better torpedo armaments and capacity while the Americans stick to their guns. Destroyers are able to temporarily conceal themselves in smoke and boost their speed temporarily to get that extra manoeuvrability on the battlefield. This makes them a ship that many of their larger counterparts fear because of their high damage potential.

Most players would gravitate towards the Battlecruisers because of their sheer size and destructive firepower. The Japanese Battlecruisers are geared towards heavy armour and heavy guns which gives them along reload time and low manoeuvrability

while the Americans have the vice versa, and with a better reload time. Battlecruisers are the backbone of your armada, and they should be used wisely or you will lose the game at a surprising pace.

Last but not least are the aircraft carriers, which are the support and snipers of the armada. Aircraft carriers do not have main guns but they do have flight squadron which can handle multiple tasks at the same time and while they can do that, this means they also get to see the map as a whole before the battle really begins which makes them one of the most important ships in the armada. A well-played aircraft carrier almost guarantees success in each game.

Gameplay in World of warships is slightly different than your other hit em up shooting games, as in this game, physics is being applied to its maximum potential, with weight of the artillery armament as well as angling becomes part of the calculation when firing as well as noting the different types of ammo required for different classes of ships. Often time's higher levels of play would see players discussing about plunging fire which is the sharp angle in which a battlecruiser shots would provide

allowing shots over terrain and spalling effect whereby ammo does not penetrate the armour fully. It is through these realistic mechanics that create a high learning curve for new players while at the same time feel rewarding to those who dedicate their time to the game.

The game progresses through battle instances and you get to unlock different battleships as you gain experience through the current ships you have then unlocking and purchasing the new ships later on , which means that the game will have you grinding for months before letting you get that dream ship, but in the end it is all worth

it, as the beautiful ship models are the exact same as their real life counterparts which gives you that extra satisfaction. Additionally, there are also premium ships which you can buy to get a feel of certain ship classes while getting premium bonuses, but this does not mean that you would be placed at an advantage because, you would still need the required skill to play the ship to its full potential.

All in all, World of Warships is a worthy addition to this year's line-up of games, and it is proving to be a massive time sink for hard-core gamers. Best of all is that the game can be played for free with money only being used for premium ships or gold membership. But if you are like the rest of us, then it's back to the daily grind of sinking your opponent ships. 🚩



World of Warships

Genre: First and Third Person Shooter, Strategy

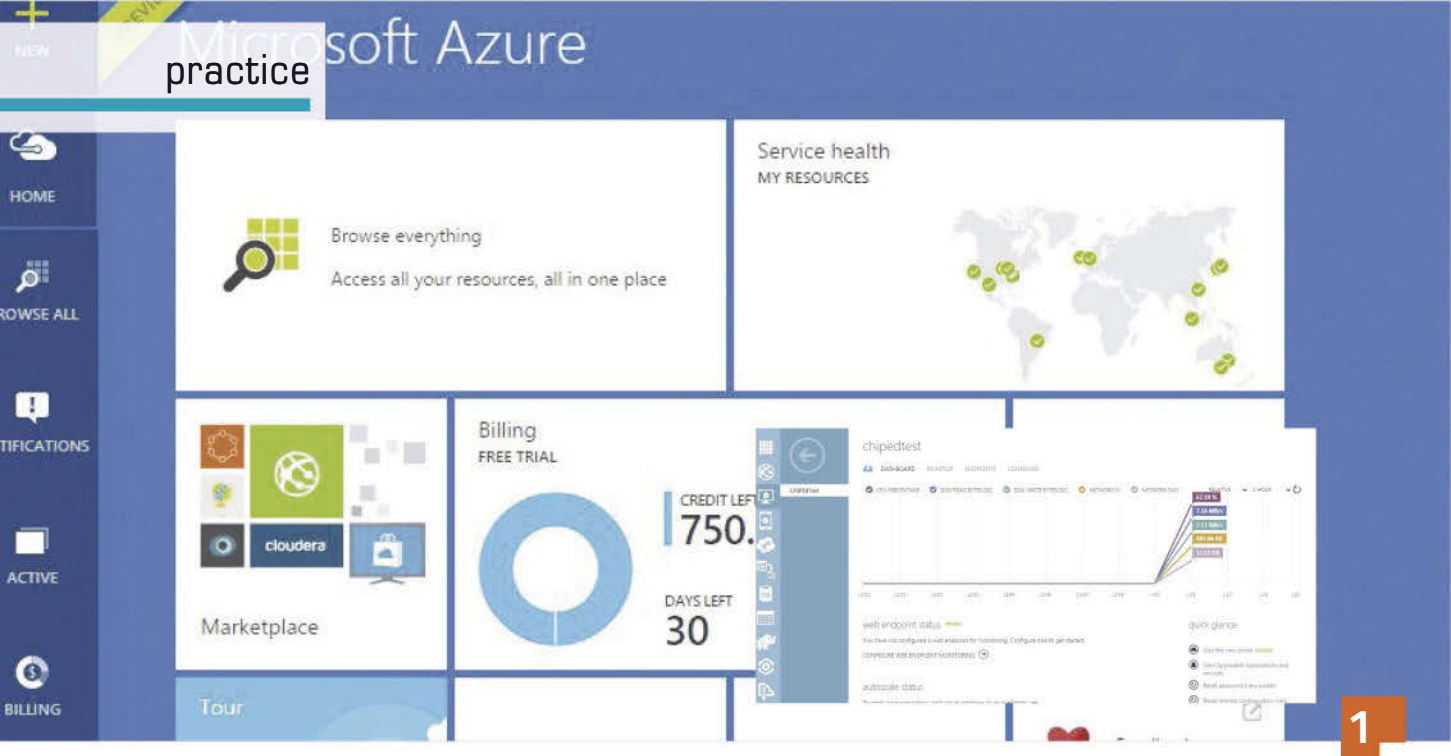
Developer: Wargaming, Lesta Studio

Info: www.worldofwarships.com

System Requirements Platform: PC

High realism	High learning
+ Beautiful models	- curve
Immersive play	Grindy

Gameplay:	🔴 🔴 🔴 🔴 🔴
Graphics:	🔴 🔴 🔴 🔴 🔴
Sound:	🔴 🔴 🔴 🔴 🔴
Replayability:	🔴 🔴 🔴 🔴 🔴



Virtual Computer in The Azure Cloud

Microsoft's Azure cloud storage is more than an online hard drive. It's also capable of storing instances of Windows and Linux By Markus Hermannsdorfer

Cloud services like Dropbox and OneDrive offer decent online storage for users, but that is pretty much it. Microsoft's Azure cloud storage, on the other hand enables you to start a virtual computer, manage blog engines and much more. A good example of the use of the service would be to use it for the installation of the operating system Windows Server 20 as a virtual machine.

The following is a step-by-step guide on how to setup Microsoft Azure, and how to install the operating system on the cloud service.

How To Steps

1 Log into Microsoft Azure

Visit azure.microsoft.com and scroll to the bottom til you see a button that says 'Hello from Seattle'. Afterwards, sign in with your Microsoft account for a free trial access, which will allow you to play around with Azure for a month.

2 Select Virtual PC

After signing in, click on 'Portal' at the top right corner. In Azure's administrative portal, click on 'New' at the bottom left corner and select 'Virtual Computer > From Gallery'. Azure will list down a

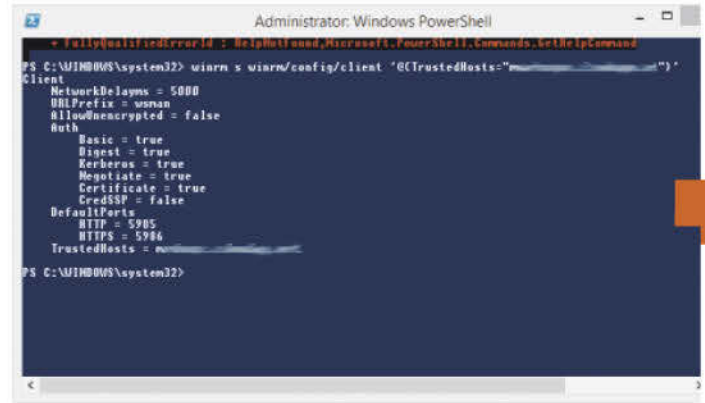
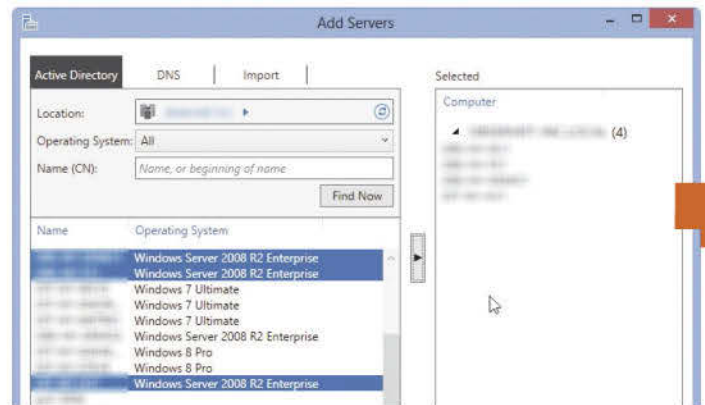
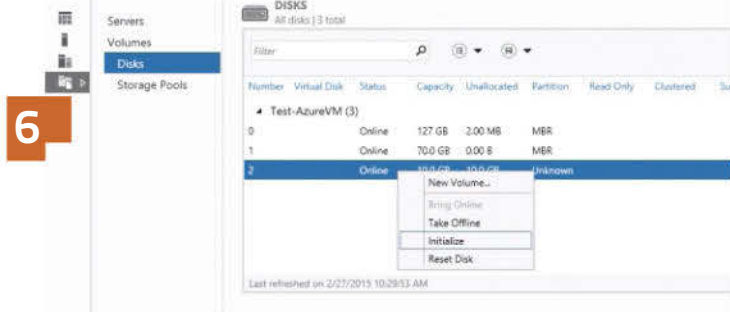
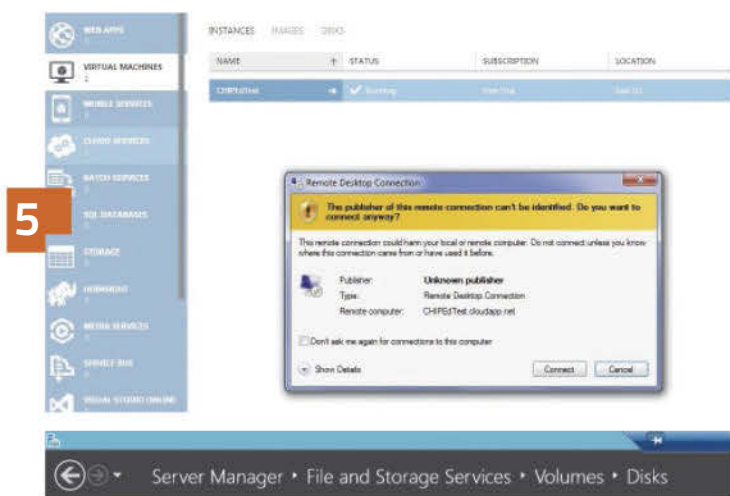
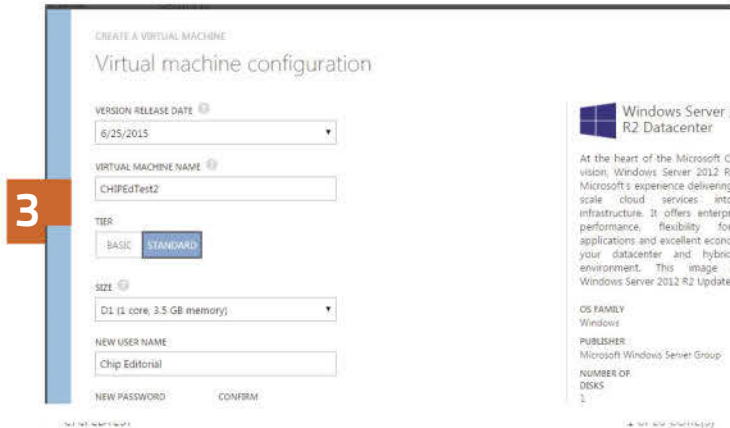
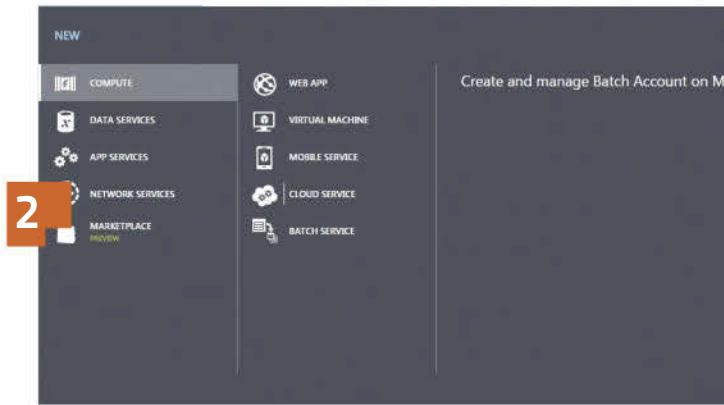
variety of server operating systems, and from here, we'll select the 'Windows Server 2012 Data Centre' for this particular tutorial.

3 Configure the Computer

Click on the arrow at the bottom left. Assign a name to the virtual PC and create a username and password. The next thing to do is to type in an ID under 'DNS name of cloud service', which is needed to point to the computer's URL. In the next dialogue box, enable 'Install VM-agent'. There is an option to select an antivirus protection software.

4 Add a Virtual Hard Drive

Click on 'Finish' and wait for Azure to finish installing the virtual computer. After it is done, you will be prompted to run the virtual PC. In the command bar, select 'Attach > Attach empty hard drive'. In the following dialogue, input the size of the hard drive in gigabytes, eg: 10GB. Confirm by clicking on the checkmark. After the drive is prepared, click on 'Data Storage Device' in the Azure dashboard. There, you will be able to see two entries. If this is not the case, perform the step once more.



5 Start Windows Server 2012

Click on 'Connect' in the command bar and save the RDP files that are being shown. Enter your username and password and click OK on the warning message. The desktop of the Windows Server 2012 will now boot up.

6 Set Up Virtual Hard Drive

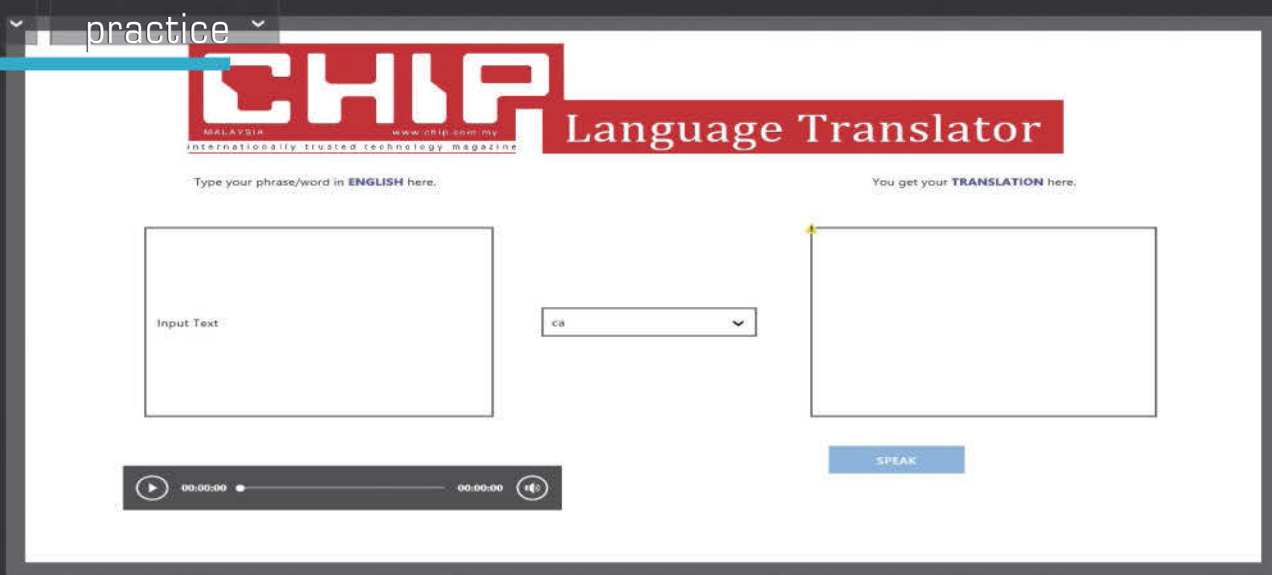
If you can't open the dashboard by yourself, click on the symbol in the task bar at the left bottom. In the dashboard, select 'File and Storage Services > Disks'. Right-click on the arranged 10-GBByte disk and select 'Initialize'. Confirm with 'Yes'. Right-click on the data storage device and select 'New Volume'. Do not change the default settings in the setup wizard.

7 Establish a Connection To Your Own PC

Download the 'Remote Server administrative tools' from the Microsoft website to your host. After the installation, start the 'Server Manager' on your computer. In Windows 8, the fastest way to find the tool is by using the search method. Enter the URL of the web server in the 'DNS' registry, which you have obtained from Windows Azure and click on the magnifying glass. If the server is found, add it by clicking on the green button.

8 Secure Connection

If you receive a message saying that the server cannot be updated, search for 'Windows Power Shell' and run this as administrator. Use 'get-service winrm' to check if the service WinRM is running (Status: Running). If this is not the case, switch to its 'Automatic' startup type in the service administration. In PowerShell, enter 'Enable-PSRemoting-force'. Finally, add the cloud computer with the command 'winrm swinrm/config/client {'@TrustedHosts='server name'}. Lastly, ensure that both PCs are located in the same network. The Azure server is now ready to be used.



DIY Language Translator

Project Siena by Microsoft helps you create your own apps for Windows 8 – for example, a language translator with audio output By Markus Hermannsdorfer

Make something new from the available resources – that is the basic thought behind Project Siena, a free app available to users of Windows 8 Professional and Enterprise. We will show you how to go about it with an example of a self-made language translator. As components, we are using the translation function of the Bing search engine and the Windows audio player.

How to proceed

1 Install and start Project Siena

Search in the App Store for “Project Siena” and install the program. When this is done, go to the tile interface and start the application.

2 Add the Input field

Press [Windows]+[Z] to hide the top menu bar. Then click on the Plus icon on the top right. Scroll a bit downwards in the list with the visual elements displayed now and click on the tile “Input text”. You will also need the element “HTML-Label”. Drag the field “Input text” to a suitable size and place the HTML Label above the input field.

3 Title for the input field

Click the input field and select “Data” in the lower menu bar. Now

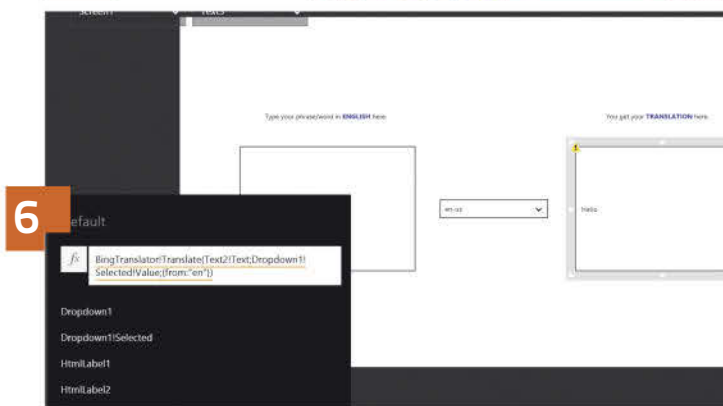
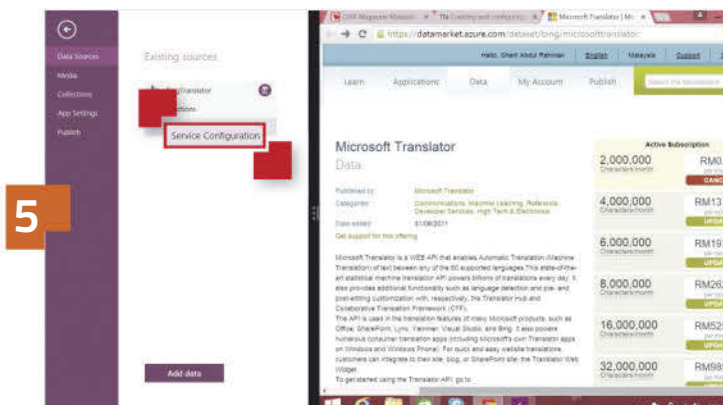
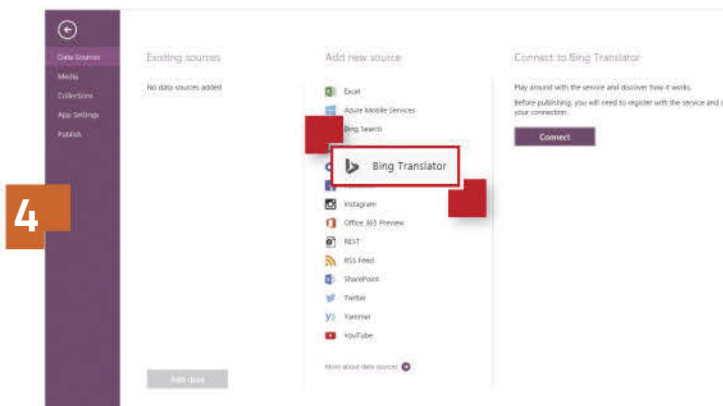
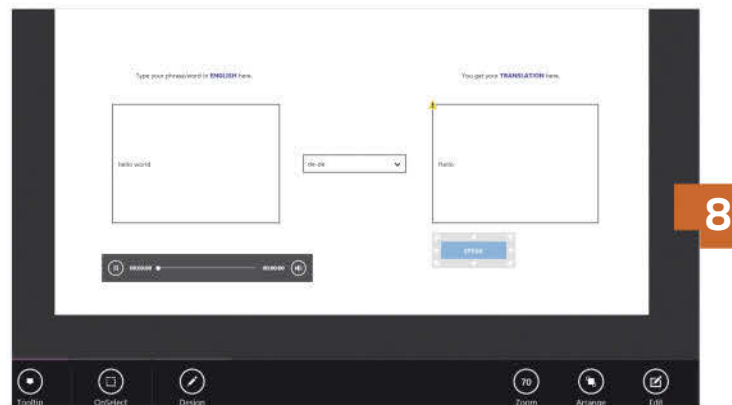
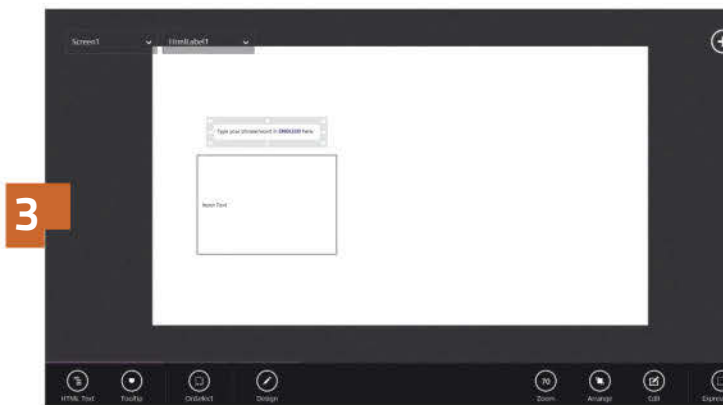
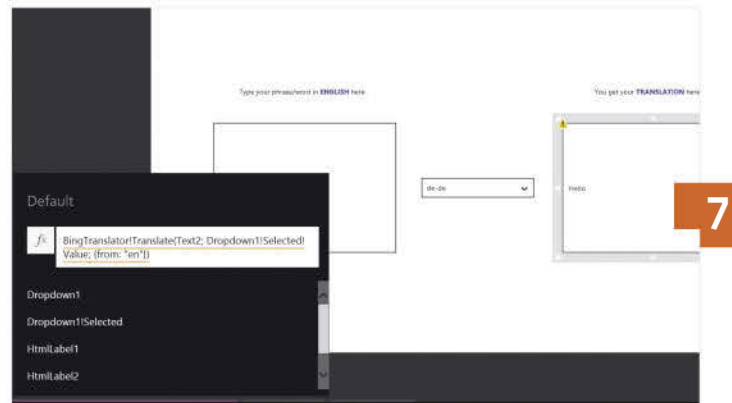
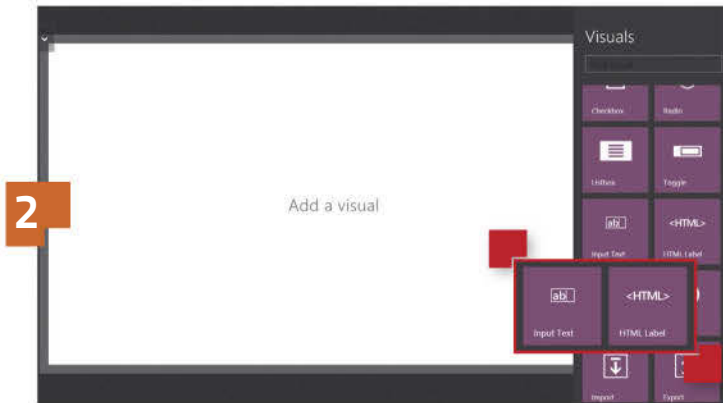
select “Default” and delete the displayed text. Subsequently, click in the Design area of the “HTML Label” and select “HTML text” in the lower menu. Change the specified text without deleting the quotation marks and the HTML code while doing so. The text, after changing, appears as follows in our example: “Enter your text here in ENGLISH”

4 Add translation service

Display the top menu bar with [Windows]+[Z] and select “App-Data | Data sources” there. In the list, select the “Bing Translator” and click on “Connect”.

5 Register as Developer

Click on “Service Configuration” under “Available sources”. Follow the link “Need help with connecting?”. Windows will then start Internet Explorer and open a new site. Search for “Bing Translator” and follow the link under it. This will bring you to the Azure Marketplace where you can register for the free option “2,000,000 characters per month”. Close Internet Explorer. You will come back to the screen with your app via the [Back] button in Project Siena.



6 Setup the output field

Add another "Input text" and an "HTML label" for the output of the translation. Change the specified texts as you have done in step 3. Add a "Dropdown" element and place it between the input windows. Select the Drop-Down list and click below on "Items". Type "Bing" in the text field and select the function "BingTranslator!SpokenLanguages()" in the list. If you wish to create a universal translator, then leave the area between the brackets blank. Else, enter a desired language, for example, "(en)".

7 Activate Translation function

Select the field in which the translated text should appear and click on "Default". Assign the function "BingTranslator!Translate(Text1!Text;Dropdown1!Selected!Value;(from:'en'))". The error messages issued by Project Siena can be ignored. Display the top menu bar and click on "Preview". You can now test your language translator. If everything works fine, then go back to the developer screen by pressing [Esc].

8 Add Audio Function

Add the visual element "Audio" and enter the function "BingTranslator!Speak(Text2!Text;Dropdown1!Selected!Value)". Subsequently click on "Behaviour" and assign the icons to the following functions below: "At Start: UpdateContext({AtPause:False;Speak:true", "At Pause: UpdateContext({AtPause:true})", "At End: UpdateContext({AtPause:true;Speak:false})". Click on "Data" and assign the function "Speak=true" to the "Start" button. Do the same for "AutoStart". Now create a "Button" and click on "Upon Selection". Add the function "UpdateContext({AtPause:false;Speak:true})". A few graphics here and there and your homemade Translator app is ready



Portrait Becomes a Pencil Drawing

With clever combinations of standard filters, you can convert any photo into a realistic pencil drawing using Photoshop By Tom Knoll and Markus Hermannsdorfer

In their advertisements, Adobe promises easy image conversion with just one click. But the filters used hardly deliver an optimal result immediately. This holds true in the case of conversion of a photo into a good-looking pencil drawing. Instead of trusting 1-click automation, it is better to combine several filters with each other. For this, first create a lot of new layers. Convert these layers into smart objects so that you can re-adjust or hide the changes done made any time to evaluate the effect.

Hard or soft contours?

The last step of this workshop is optional. Contours made with a pencil often appear somewhat hard therefore a painter will blur it sometimes. The final result then appears as it has been drawn with charcoal. We recommend you to execute this step in any case. As it refers only to the topmost layer, you can hide and display the same to determine its effect. Save the variants which you like the most.

How to proceed

1 Set up a work layer

Start Photoshop and open the desired photo which you want to convert to a pencil drawing. Duplicate the layer using the key

combination [CTRL]+[J]. Hide the lower layer and continue working on the upper layer.

2 Convert photo to greyscale

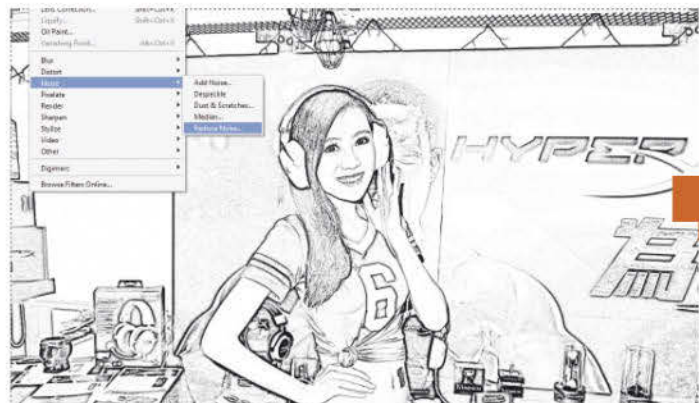
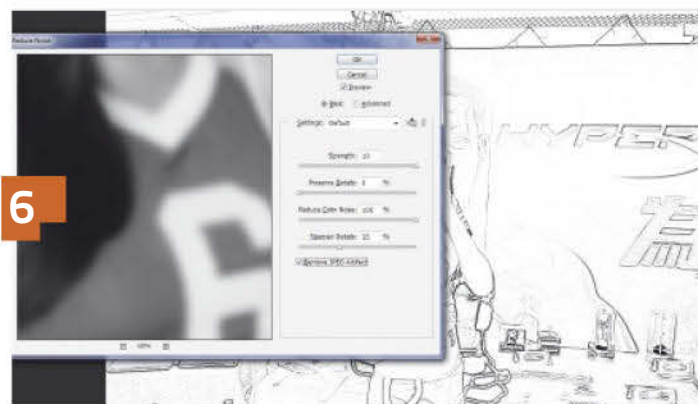
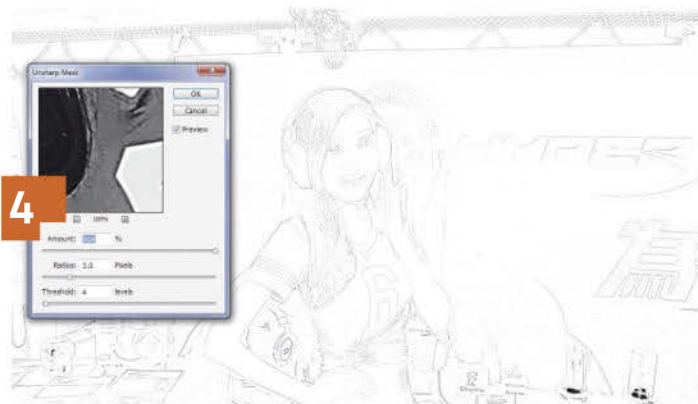
Convert your photo into a greyscale photo via "Image | Adjustments | Black and White". Then select either a suitable "Preset" or set the colouring of the image with the help of the slider. In our sample picture, the preset "Green filter" gave an equally good result so we did not need to readjust anything. Confirm your setting with "OK"

3 Convert layer into a smart object

Select both the layers and press [Shift]+[Ctrl]+[Alt]+[E]. A new layer will be created which contains all information from both the original layers. Right-click on the new layer and select "Convert to Smart Object". Then duplicate the smart object layer using the keys [Ctrl]+[J].

4 Add pencil effect

Set the layer mode of the topmost layer from "Normal" to "Divide". An almost white picture will appear. After which switch to the smart object layer under it. In the menu, select "Filter | Sharpen filter |



Mask Unsharp" and set the following values in the dialogue window of the filter: "Intensity: 500", "Radius: 3.0", "Threshold: 4". Confirm with "OK".

5 Strengthen dark lines

Switch back again to the upper smart object layer and open the "Gaussian Blur" via "Filter | Blur". Set a value of "8 pixels" under "Radius" and confirm with "OK".

6 Remove noise and artefacts

Stay on this layer and in the menu, go to "Filter | Noise | Reduce Noise". Set the following values in the dialogue field of the filter: Intensity: 10", "Details received: 0", "Reduce colour noise: 100", "Sharpen details: 35". Also set a check mark for "Reduce JPEG-Artifacts" and then confirm your settings with "OK".

7 Merge layers again

Merge all the layers into a new layer again using the key combination [Shift]+[Ctrl]+[Alt]+[E]. Set the layer mode of the new layer from "Normal" to "Colour Burn", convert the layer into a smart object and duplicate this layer thereafter. First hide the uppermost layer and apply the "Gaussian Blur" with a "Radius" of approximately "9" on the layer below it.

8 Smudge the contours

If you want, you can smudge the contours a bit in order to make the subject appear softer. For this, make the topmost layer visible and set the layer mode from "Normal" to "Multiply". For this layer, use "Gaussian Blur" with a "Radius" of "4" pixels. Finally, go back to "Reduce noise" under "Filter | Noise" and accept the values already set for this layer. Merge all layers with [Shift]+[Ctrl]+[Alt]+[E] before you save your photo. 📌

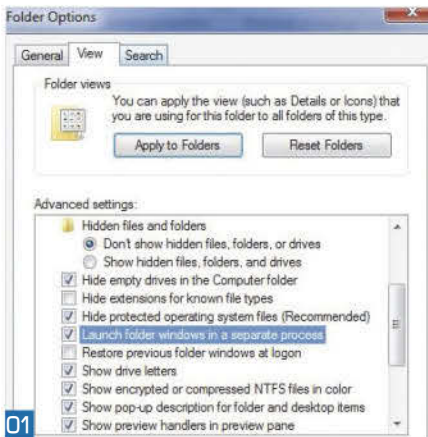
Tips & Tricks

AUGUST 2015

WINDOWS

01 WINDOWS 7 Start Explorer with advanced Admin rights

For security reasons, Windows 7 blocks the Internet Explorer window when you log in as Administrator. Therefore, you have to first allocate a separate process to every window. For this, open the Explorer with [Windows]+[E]. Select the entry "Folder and Search options" under "Organise". Go to the tab "View" in the new window. Here, enable the option "Start folder window in a separate process", and click on "OK". You can now disable the administrator block in the registry. Press [Windows]+[R] and type the command "regedit". Confirm with "OK". Go to the key "HKEY_CLASSES_ROOT\AppID\{CDCBCFCA-3CDC-436f-A4E2-0E02075250C2}" in the registry. Right-click on the key and select "Delete". Restart your PC. You can then start Windows Explorer as an administrator via the Start menu. For this, right-click on the corresponding entry



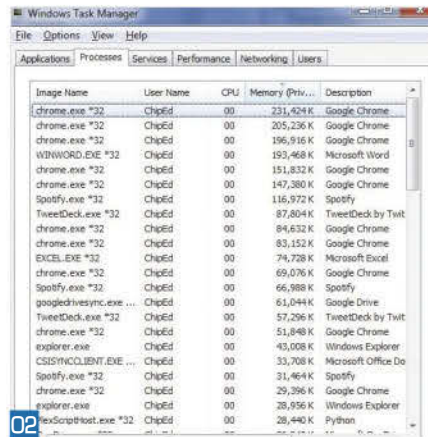
Before removing the Administrator block, allocate a separate process to every Explorer window under the »View« option

and select the option "Run as Administrator".

02 WINDOWS Eliminate problems of too-high disk usage

The system will no longer work reliably if the disk usage is too high. You can use the following tricks to make Windows run faster again and reduce the load of the hard disk. Start the Task Manager. Go to the tab "Processes" and terminate all processes that you do not need. For this, simply select the processes and then click on "End Process".

Too many Autostart programs may be the reason for high usage. Open the Start menu and type "msconfig". Confirm with the Enter key. In the registry "Systemstart", remove the check mark for all those program which are not absolutely necessary for Autostart. All the on-going system services are displayed in the tab "Services". Enable the option "Hide all Microsoft Services" and then remove the check mark for those services that are not



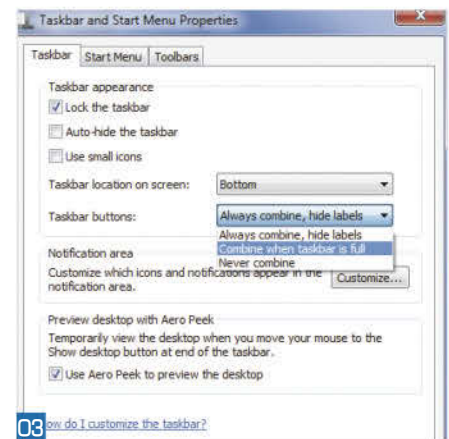
Terminate parallel running processes in the Task Manager to reduce disk usage

mandatorily needed. Save the changes with "OK" and then restart the PC so that the changes will be effective.

Too many programs installed can also be responsible for the high disk usage. Thus, go to Control Panel and select "Programs & Functions" and uninstall all the programs that are not required.

It may be often helpful to change the power settings from "Balanced" to "High Performance". This can be done in the Control Panel under "Power Options"

03 WINDOWS 8.1 Prevent grouping of several windows in the Taskbar



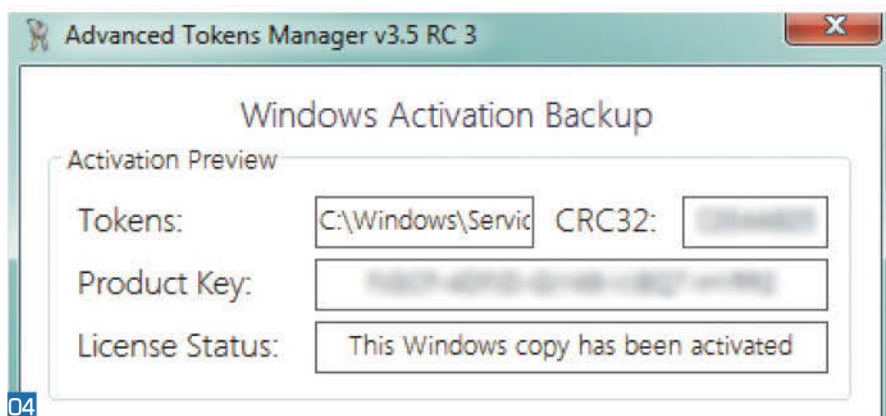
03 How do I customize the taskbar?

"Properties" of the Taskbar contain the searched function

If you do not wish to group windows in the Taskbar then you can disable the function. To do this, right-click on the Taskbar and select the option "Properties" in the context menu. You can now select several variants in the list "Buttons in the Taskbar". If you basically wish to disable grouping, then select "Never group". The other alternative is to select "Group when Taskbar is full".

04 WINDOWS Back up and use the files of Windows and Office Activation

Reinstallation of Windows is an often occurrence for tinkerers. A free tool now takes over the annoying activation process where it backs up the necessary data. Install and start the free tool Advanced Tokens Manager. In the second line, the program should display your product key immediately. Back up your Windows and Office activation on an external disk or a



04

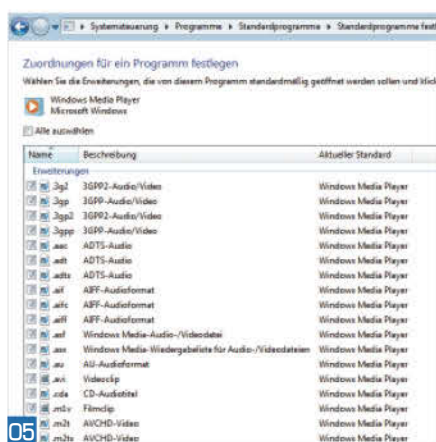
The Advanced Tokens Manager backs up your Windows and Office activation including the product key

USB stick via "Activation Backup". If you re-installed Windows then install the Advanced Tokens Manager there and restore the applicable activation with one click.

Note From Windows 8 onwards, you will also find Windows Activation in the folder "C:\Windows\System32\spp\store". Simply copy the entire folder to the external disk.

05 WINDOWS 7 Repair faulty "Open With" for some programs

If "Open With" is not working under Windows 7 then the option is also hidden in the system settings. Open the "Control Panel" and select the option "Programs". Now click on "Default Programs" and then on the option "Set Your Default Program". Here, on the left side, you will find all the programs that are provided for opening of files. Select one program and click on "Select defaults for this program". You can now set a check mark for all file types which should be opened with the selected program.



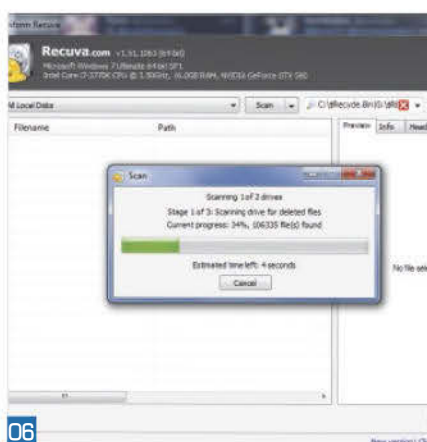
05

In the Control Panel, determine which program should open which files

06 WINDOWS The best tips to recover lost or deleted data

It is often frustrating when there is data loss. You can now recover your data with the help of special tools; however, you must pay attention to a few important points. There are many programs that portray themselves as rescuers in case of emergencies but not all of them get the work done. Therefore, install only those what are offered by official sources, e.g. Recuva. It is very important that you never install the recovery tool on the hard disk or partition from which you wish to recover data. You should also not save the recovered material at the location where it was lost in the first place. The best option is to save it on to another hard disk.

During data recovery you should avoid burdening the computer with complex processes. Thus, updates, installations or downloads of recoverable data may be overwritten and thus render the recovery impossible. Also, ensure uninterrupted



06

No other complex processes should run in the system while Recuva searches for lost data

power supply during the recovery process, particularly when you are using a notebook. Power interruption may cause severe damages to the hard disk.

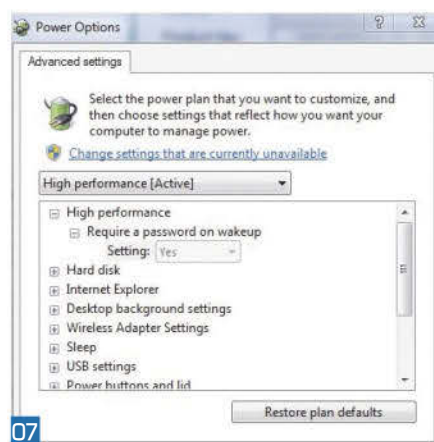
You should generally make regular backups of your PC. The best option for this are the external hard disks which ensure that your files are available even if your PC crashes completely. It is also important that you keep your PC updated with the latest Windows updates.

07 WINDOWS Control the power consumption of your CPU via the Control Panel

When you optimise the power consumption of your processor, you can get better battery life from your notebook. In the Control Panel, click on "System and Security | Power options". Go to the link "Change plan settings" in the selected power plan and then click on "Change advanced power settings". Now look for the option "Processor power management" in the list and click on the plus symbol. Open the "Minimum processor state" tab.

The specifications are controlled separately for battery and power supply operation. You should set the value to about "5%" here. To change a value, click on it so that a combination field for input is visible. You should also reduce the lower limit to "5%" for the power supply operation. This does not imply any change in performance but facilitates lower power states for the processor which you will identify with a more moderate fan noise.

Now open the path "Maximum power state of the processor". For battery operation, it is recommended to enter a



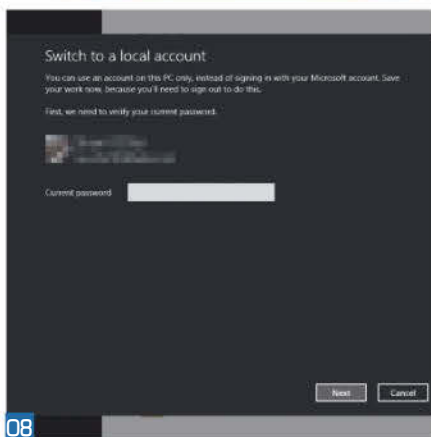
07

In Notebooks, you can reduce the power hunger of the CPU by managing processor power

value between "50 %" and "75 %" here as long as you do not run any processor-intensive tasks. This setting slows down the system a bit but is hardly noticeable in normal use. On the other hand, the lower power requirement ensures a longer runtime.

On the other hand, it is better to keep the power at full for desktop systems. Finally, confirm the options one after another by clicking on "Accept" and "OK".

08 WINDOWS 8.1 Convert Microsoft account into a local user account

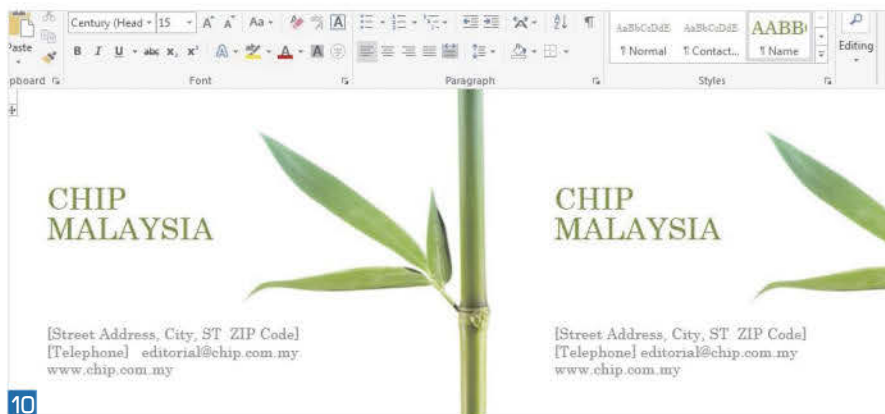


You can convert a Microsoft account into a local account via "Settings"

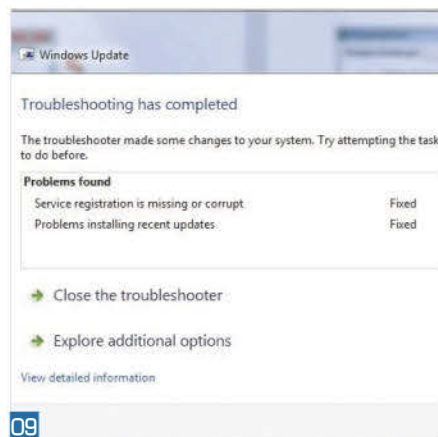
If you are not using Cloud services of Windows, then you can change the Microsoft account into a normal user account. Press [Windows]+[I] at the same time. Then click on "Change PC settings". Go to "Accounts" in the left display. Now select "Separate" on the right under your account name. To confirm this, you must enter your latest Microsoft password and confirm by clicking on "Next". Now enter a new name and a new password and click on "Next". You can subsequently "Log out and Exit".

09 WINDOWS 7 You can do this if Windows hangs during updates

If Windows stumbles while installing updates, there may be several causes for this. But the problems can be easily rectified. If Windows freezes during a download or installation of updates, give the process a few minutes. Even the smallest updates may sometimes take a lot of time



10
Simply replace the sample text in the Office template



09
You can convert a Microsoft account into a local account via "Settings"

for installation. If you see no end in sight, cancel the download or installation. Restart your computer if possible and run the update process again.

A minimal installation of updates may also help. Instead of starting 30 updates at one time, select only five or ten updates for every turn. If problems continue with Windows, run the automatic troubleshooting tool. In this case, Windows will look for errors and rectify them by itself. If there is a major problem with Windows after the installation of updates or after the cancellation of installation, you should do a system restore.

OFFICE

10 WORD You can create impressive business cards with just a few clicks

Word has all the print templates ready for business cards. You can download these templates and then add only the company name, company logo and address on

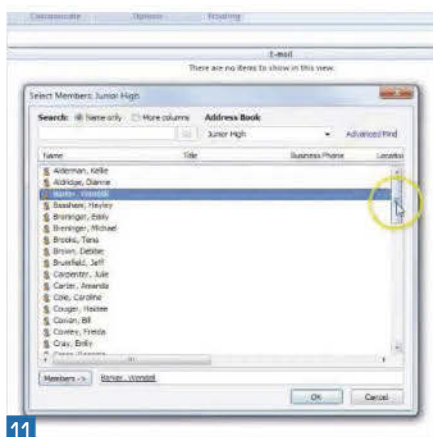
the card. Start Word and click on "File | New". The entire range of available Office.com templates will open. You will find an enlarged preview for every sample on the right side of your screen. Enter the term "Business Cards" in the search bar to get a quick overview of all sample business cards. When you have decided on a template, click on it and download it.

Now, you just need to enter your information in the card. Select the specified text on the card so that the text field will open. You can now enter the name, address and other details on the card where you will replace the sample text with your own information. Select the size and number of business cards in the print settings before printing.

11 OUTLOOK 2010 Send messages to a self-made distribution list

If you send several messages to different person, then creating a distribution list will often be worth it. Open Outlook and go to the tab "Start". Click on "Contacts" in the menu bar on the bottom left so that the menu above changes. Here, select the option "New Contact Group" in the group "New". A new window will open. First enter a name for your distribution list, such as, "Friends" or "Work Colleagues" in the field "Name". You can later choose the distribution list under these names.

Now go to the tab "Contact Group" and click on "Add Members" under the category "Members". Here, select either the option "From Outlook Contacts", "From Address book" or "New Email Contact". Type the names or Email addresses of the contacts and click on the "OK" button. The distribution list will now be stored under the specified



11 Simply type the name of the distribution list as addressee while writing a mail

name.

While composing a new message, you can just type the name of the distribution list in the address field so that this name is inserted as the recipient.

HARDWARE

12 USB STICK

Find the cause when the PC does not recognise the USB stick correctly

If the message "No Media" is displayed for the USB stick then there may be various causes responsible for the same. The USB port used may be defective. To check this, insert the stick in another port. The other alternative is to test the USB stick on another PC.

If these attempts do not yield results then it is possible that the USB stick is defective. You can also repair it with the hard disk check in Windows. For this, the operating system has to successfully identify the stick.

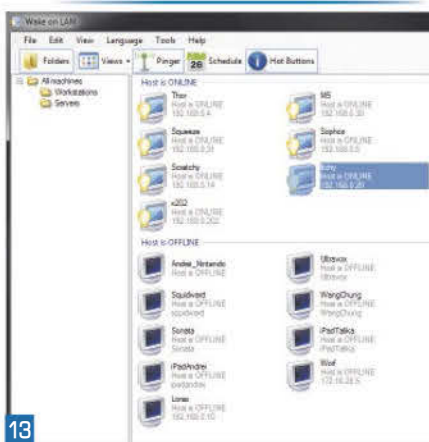


12 Simple universal holders are cheap and mostly sufficient for private use

Some USB sticks have a write-protection switch. Ensure that the write-protection is disabled. Also check whether the required USB drivers are updated. If not, then you should update them. If the problem is not resolved even after the update then the last option is to format the USB stick. In this case, all your data will be lost but at least you will be able to use the stick again in future.

13 COMPUTER

Start your own computer via remote access over the network



13 WakeOnLan automatically enters all the necessary computer data via buttons

You can start your PC easily via remote access over the network with the help of the free software WakeOnLan. Install the freeware and start the program. Click on "New Host" in the menu bar. A dialog will open.

Click on "Check" to add the name of the computer. The name will now be entered automatically. The IP address of the PC

can be automatically entered in the field by clicking on the button "Resolve". The same is applicable for "IPv6 Address" and "MAC Address". As soon as all data is entered, confirm the same with "OK".

The PC will now be included in a list. Save the list where you click on "Save" and type a random name. You can use the saved file easily in other WakeOnLan programs via the "Open" option. Select the same and then click on "Wake up" to start the desired PC.

14 PLAYSTATION

Back up data of the gaming console on an external hard disk



14 Since the last Firmware update, Playstation4 allows backing up of data on the external hard disk

Since Firmware update 2.50, PlayStation 4 allows you to back up your data on an external hard disk. For this, open the "System Settings" and select "System" and then "Backup and Restore". Now plug in your USB hard disk and select "Backup PS4". Note that the trophies won are not backed up and hence why you must run the synchronisation beforehand. The next screen shows how large the backup will be. You can exclude the installation data of games. However, in this case, you must fully download the games again if you want to playback your backup. The data backup will take some time to complete.

If you wish to use your backup later then select the option "Restore PS4" in the same menu. If your USB device is connected, then the PS4 will automatically detect the backup and will be able to reinstall everything.



15

Do not capture food images just obliquely from above. Amaze viewers with unusual angles and specific blurs

PHOTOGRAPHY

SUBJECT

15

Feast for the eyes: Super techniques to capture food perfectly in photos

Good food photography is not easy. Here you will find the best tips for capturing your favourite foods. Avoid artificial light sources which often gives out a yellow tinge. Also do not use any flash. The best light source is a huge window. Align the food in its vicinity. If the sunlight is too bright then hang a translucent white cloth on the window. The other option is to use a white surface, for example, the backside of a poster, as a reflector. You can, thus, control the light and also make the light a bit softer.

The best option is the light should come from the side or from behind, so that the shadows of the food will appear on the side or behind and are hardly visible. Also pay attention that your own shadow does not fall on the food when you are positioned between the window and the dish.

If the technique works, then proceed to compose the scene. Surprise the viewer by the fact that you are not taking photos slanting only from above. Make variations, for example, where you look directly perpendicular at the plate. Also a picture from the side - identified by the cutlery - or details in the photo, can also prove to be impressive.

Discreetly used toppings make your pictures stand out from the crowd. A simple soup appears to be much more stylish when there are a few herbs and leaves as garnish floats in it. But do not garnish too much or too messily.

A few well-placed accents work better than many randomly distributed leaves. The decor can also indicate what dishes are being depicted. Garnish only with decoration that goes well with your food.

Not only the food but also the creation process is of interest for many. Shoot pictures that show how individual ingredients are arranged or mixed in bowls. Even photos that depict the cook in action, can come out looking quite impressive. In this case, it is sufficient, for example, that there is a hand seen stirring or pouring. Also try to work with different focus settings. Arrange several ingredients and put one of them particularly in the foreground.

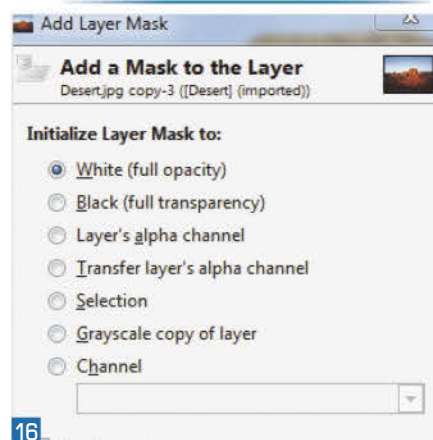
The first bite is also a beautiful photo subject as it makes the scene livelier. For this, take a small portion on a fork. Depending on the picture, hold it in the picture. You can also arrange the plates such that the first bite is visible where you, for example, leave a small space in the salad. Here you can play well with distances and

mainly also with sharpness or blur.

GIMP

16

Subsequently rectify the exposure of a photo in photo editing



16

You can paint a supposedly wrong exposure on a white layer mask

Under or overexposed photos can be rescued using a layer mask. Open the photo in Gimp and right-click on it. Select "Layer | Duplicate layer". If the photo is underexposed, then change the mode of the upper layer from "Normal" to "Screen" in the Layer window. In case of over-exposure, select "Multiplication" instead.

Now add a layer mask via "Layer | Mask" and select "White: Full opacity". Edit this mask with a large brush and low opacity. The size and strength depends on the picture. You will need several attempts till you get the right exposure.

LIGHTROOM

17

Synchronise photos between smartphone and computer



17

You must log in to Adobe Cloud as the smartphone and PC synchronise via the same

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Use Adobe Lightroom on the PC and on the smartphone, and then set it to automatically import your photos on both devices. Start Lightroom on your computer, click on the "First steps with Lightroom mobile" on top and then log in with your Creative Cloud account.

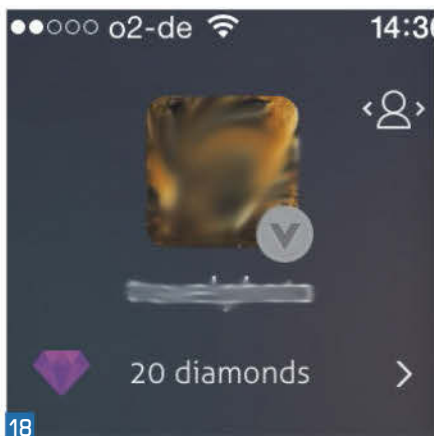
If you wish to release photos for synchronisation with your smartphone, you must now create a collection with the desired photos. Click on the square icon next to the collection on the left to start the process. Only previews will be synchronised on your smartphone. The originals will remain on the computer. Subsequently start the Adobe Lightroom app for iOS or Android. Log in to your Adobe Creative Cloud account and your photos will synchronise automatically. The photos from your smartphone will be uploaded if you want and the photos from your computer will go to the app directly as a copy.

18 INSTAGRAM

Use the app with several accounts simultaneously

If you want to manage two Instagram accounts in parallel, then you have to either use tricks or a third party app. The free app Phonegram for iOS or Android helps you to log in and manage two accounts in parallel. There is a drawback - unfortunately, you cannot upload photos with the app.

Alternatively, you can operate Instagram via two browser windows. The accounts logged in there are hugely restricted. Only the subscribed photos and settings can be called. Simple but complicated: If you do not want to miss a single function of Instagram



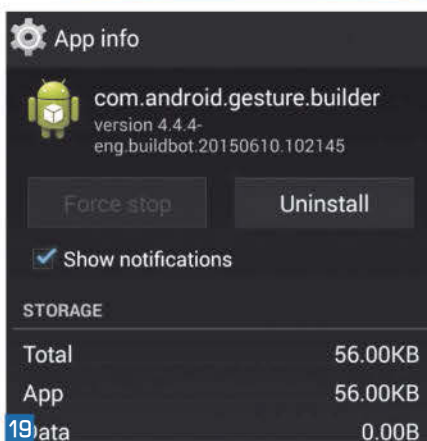
You can switch between your Instagram accounts back and forth via the Person icon on the top right

then the only option is to switch between accounts via logging in and logging out.

MOBILE

19 ANDROID

What to do if apps do not start after an error message?



You can force the termination of Android apps that hang due to errors, in the LogsProvider

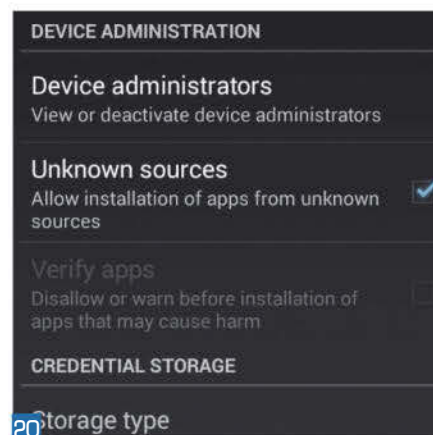
If the message "The process com.android.phone was stopped" appears on your smartphone, then the currently opened app can no longer be used. In such a case, first open the "Settings" on your smartphone. Look for the category "Apps" or the "Application Manager". Select the "LogsProvider" and tap on the button "Force Stop" above. Also tap on the button "Delete Data" so that the error no longer appears.

If the problem still persists, you have to find the cause for the application concerned. As shown above, for example, search for the Phone app and also select "Force Stop", "Delete Cache" and "Delete Data" here. If this does not yield any result then the error lies deeper in the system. In this case, resetting to factory settings is the only solution. However, ensure that you back up your data before doing so.

20 ANDROID

Resetting the smartphone to factory settings

If your smartphone no longer works correctly with Android 4 or 5, then you can reset it to the factory settings. First open the app "Settings". You will now see the option "Backup and Reset" under the "User" category. You should back up your data now as all the data will be lost while resetting the device to factory settings. Subsequently,



Allow the installation from unknown sources in the security settings

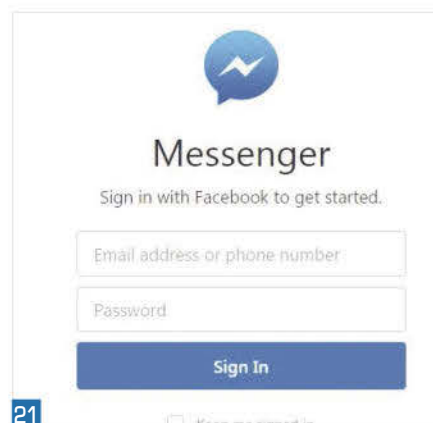
select the option "Reset to factory settings" below. Confirm the displayed question by tapping on the button "Reset Device". The cell phone will restart and the installation process will begin after a few minutes.

SOCIAL NETWORKS

21 FACEBOOK

Use Messenger in the browser and chat without distraction

You can use the Facebook Messenger not only on the official page or the smartphone but also use it in the browser. For this, open the site messenger.com. Log in with your Facebook account. Usually your name will be displayed to you so that you just need to click on "Proceed as [Your Name]". You will now be forwarded to the Messenger page where you can type independent of your normal Facebook activities. The user interface will appear equally familiar. On the left side of the screen, you will see your contacts and the remaining screen will be your dialog window. 📺



You can force the termination of Android apps that hang due to errors, in the LogsProvider



Morten Bangsgaard, CTO, before the blind drift session.



The drift car with its windows blacked out and fitted with a webcam while a live stream app provided the driver with sight as he drifted.



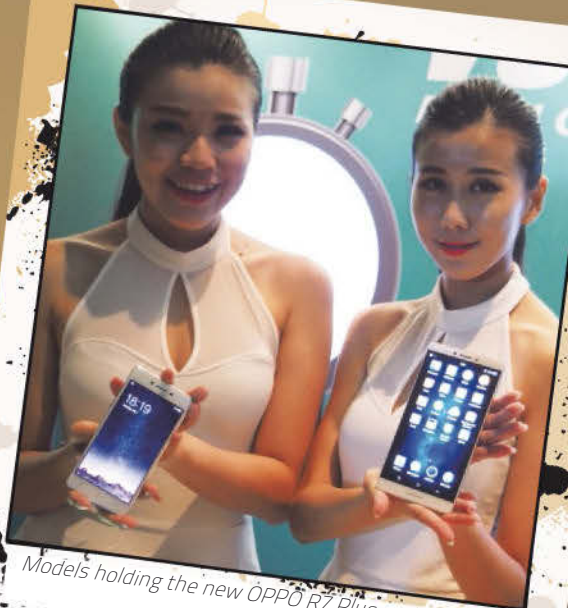
The public trying out laptops equipped with the new NVIDIA graphics processors



Samsung's take on the 3D VR Google is demonstrated by a model at their roadshow in Pavillion



A group of cosplayers posing at the launch event of VGL's cosplay search competition



Models holding the new OPPO R7 Plus and R7 Lite



ASUS unveils its brand new ASUS Z170 Pro Gaming motherboard, powered by Intel's latest Skylake processor



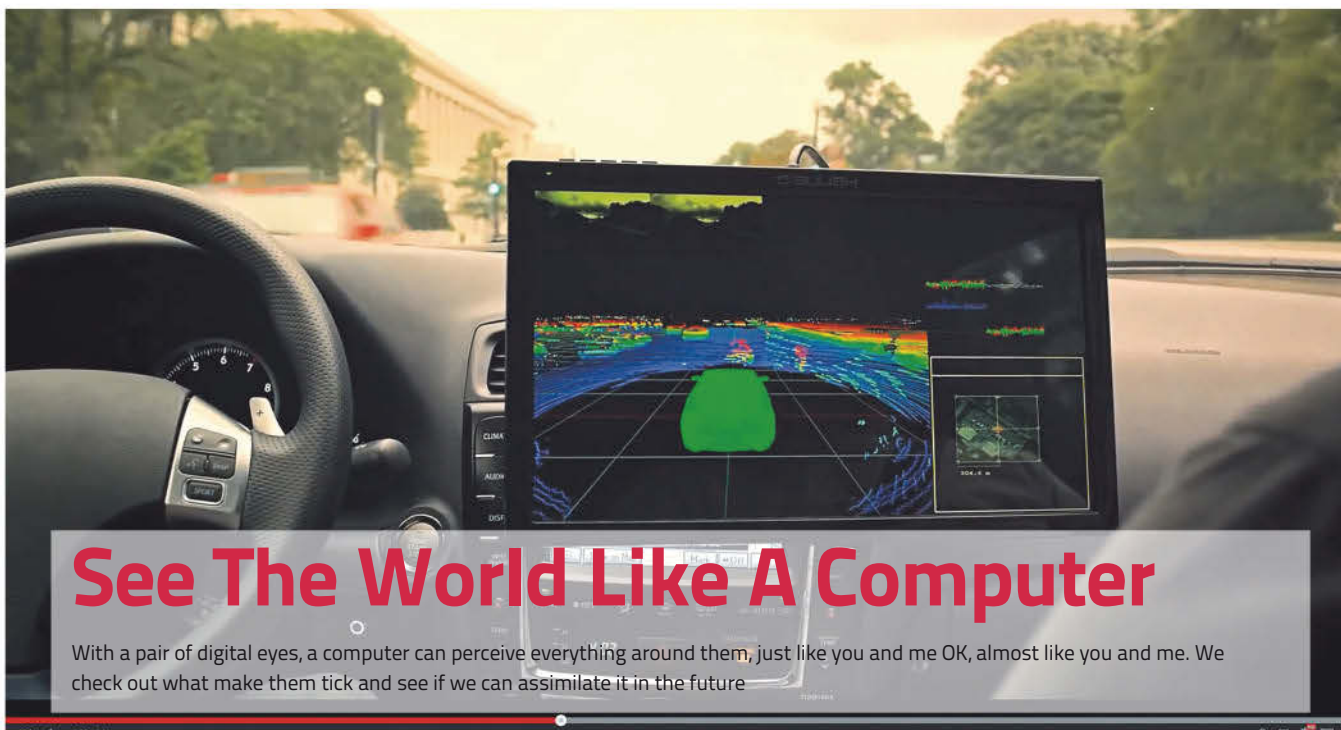
A group of Mi Fans around the newly launched Xiami Mi Note



The new AMD graphics card with models at the Kuala Lumpur launch event



Umobile models standing with the new Umobile Road Trucks



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Data Rescue Assemble!

The hard disk stops working and all valuable data appears to be lost. This is a case for the data rescuer from Kroll Ontrack! CHIP shows you how do experts in the clean room, bring mechanically damaged media back to life, find your data and compile them again.

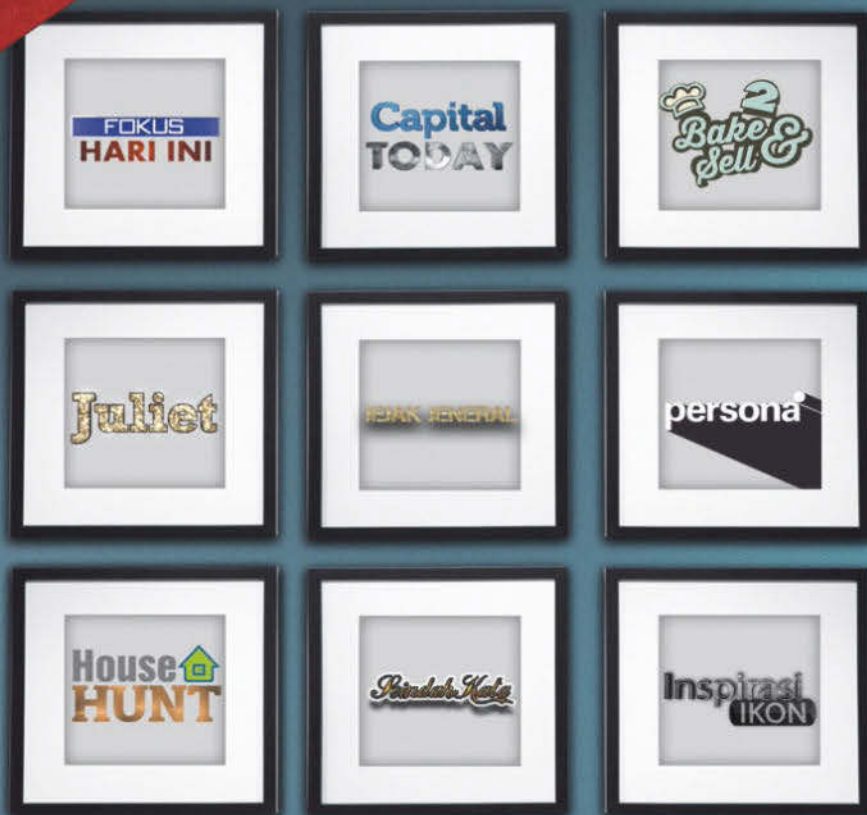


Surf The Net Safely

With all the hoo-haas about unsecure networks, what can us as the end user do to be safe? We share some tips and tricks on how to surf the net in a secure manner, without leaving any digital breadcrumbs around



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